## IN THE CLAIMS:

Please amend the claims and add new claims 47-93 as follows:

- 1. (Previously presented) A transition metal compound represented by the formula LMX wherein M is a Group 3 to 11 metal; L is a bulky bidentate or tridentate neutral ligand that is bonded to M by two or three heteroatoms and at least one heteroatom is nitrogen; and X is a substituted or unsubstituted catecholate ligand provided that the substituted catecholate ligand does not contain a 1,2-diketone functionality.
- 2. (Original) The compound of claim 1 where M is a Group 8, 9, 10 or 11 metal.
- 3. (Original) The compound of claim 1 wherein M is Fe, Ru, Os, Co, Rh, Ir, Ni, Pd, Pt, Cu, Ag or Au.
- 4. (Original) The compound of claim 1 wherein M is Fe, Co, Ni or Pd.
- from the group consisting of: substituted and unsubstituted 2,2'-bipyridyl, 2,2'-biquinolinyl, 2,2'-bipyrazinyl, 1,10-phenanthroline, dipyridin-2-yl-amine, dipyridin-2-yl-methane, N¹-(2-amino-ethyl)ethane-1,2-diamine, N¹-(3-amino-propyl)propane-1,3-diamine, ethane-1,2-diamine, propane-1,3-diamine, cyclohexane-1,2-diamine, N,N,N',N'-tetramethylethane-1,2-diamine, methyl-(2-methyliminoethylidene)amine, N,N'-bis(napthalen-1-ylmethylene)ethane-1,2-diamine, N,N'-bis(napthalen-1-ylmethylene)propane-1,3-diamine, N,N'-dibenzylidene-propane-1,3-diamine, N¹-napthalen-1-ylmethylene-ethane-1,2-diamine, 2-[(3-amino-propylimino)methyl]phenol, 2,4,4-trimethyl-1,5,9-triaza-cyclododec-1-ene, 1,4,7-trimethyl-[1,4,7]triazonane, [2,2';6'2']terpyridine, N-[2-dimethylaminoethyl)-N,N',N'-trimethylethane-1,2-diamine, cyclopenta[2,1-b;3,4-b']dipyridin-5-one, 2-(2-pyridylsulfanyl)pyridine, 2-(2-pyridyloxy)pyridine, benzyl-bis(pyridin-2-ylmethyl)amine, 2-pyridin-2-yl-quinoxaline,

 $N^{1}$ -ethylidene-ethane-1,2-diamine, and bis(1*H*-benzoimidazol-2-ylmethyl)amine where substitution refers to replacing one or more existing hydrogen atoms bonded to carbon with another atom or group of atoms; and 1,4-diaza-1,3-butadiene ligands containing substituents in the 2 and or 3 positions containing trihydrocarbylsiloxy groups.

6. (Previously presented) The compound of claim 1 where L is represented by the formulae:

$$R^{2}$$
 $A_{X}$ 
 $R^{1}$ 
 $E$ 
 $G$ 
 $R^{3}$ 
 $R^{2}$ 
 $E$ 
 $G$ 
 $R^{3}$ 
 $R^{2}$ 
 $R^{2}$ 

where each E is, independently, a Group 15 element that is bonded to M, provided that at least one E is nitrogen; G is a Group 16 element that is bonded to M; A is a bridging group containing a Group 13-16 element and an atom within A may optionally be bonded to M; x is 0 or 1; R<sup>1</sup> is, independently, a bulky hydrocarbyl, substituted bulky hydrocarbyl, bulky halocarbyl, or substituted bulky halocarbyl; R<sup>2</sup> is, independently, hydrogen, or a hydrocarbyl, substituted hydrocarbyl, halocarbyl, or substituted halocarbyl provided that a substituted hydrocarbyl, substituted with trihydrocarbylsiloxy; R<sup>3</sup> is, independently, hydrogen, or a hydrocarbyl, substituted hydrocarbyl is not substituted with trihydrocarbylsiloxy, or R<sup>3</sup> is a substituted hydrocarbyl group containing a heteroatom or silicon atom directly bonded to G, E or the indicated carbon atom; R<sup>22</sup> is, independently, hydrogen, or a hydrocarbyl, substituted hydrocarbyl, halocarbyl, or substituted halocarbyl provided that a substituted hydrocarbyl, halocarbyl, or substituted halocarbyl provided that a substituted hydrocarbyl, halocarbyl, or substituted halocarbyl provided that a substituted hydrocarbyl is not substituted with trihydrocarbylsiloxy; and where

R<sup>1</sup>, R<sup>2</sup> and/or R<sup>3</sup> groups on the same atom, adjacent atoms or those separated by one additional atom may join together to form a substituted or unsubstituted, saturated, partially unsaturated or aromatic cyclic or polycyclic ring structure provided that for L1, both pair of R<sup>1</sup> and R<sup>2</sup> do not join to form a substituted or unsubstituted pyridine, pyrazine, pyrimidine or benzimidazole ring;

R<sup>22</sup> and R<sup>3</sup> may join together to form a substituted or unsubstituted, saturated, partially

unsaturated or aromatic heterocyclic ring structure provided that for L21 and L22, R<sup>1</sup> and R<sup>2</sup> do not join to form a substituted or unsubstituted pyridine, pyrazine, pyrimidine or benzimidazole ring; and

two R<sup>2</sup> bonded to the same atom together may form an –one (=O), a thione (=S), an – imine (=NR''''), or a –carbene (=CR'''2) group where R''' is independently, hydrogen, hydrocarbyl, substituted hydrocarbyl, halocarbyl or substituted halocarbyl and two or more R''' on the same carbon may join together to form a substituted or unsubstituted, saturated, partially unsaturated, or aromatic cyclic or polycyclic substituent.

7. (Previously presented) The compound of claim 1 where L is represented by the formulae L\*1 to L\*410 where:

R<sup>1</sup> is, independently, a bulky hydrocarbyl, substituted bulky hydrocarbyl, bulky halocarbyl, or substituted bulky halocarbyl; R<sup>2</sup> is, independently, hydrogen, or a hydrocarbyl, substituted hydrocarbyl, halocarbyl, or substituted halocarbyl provided that a substituted hydrocarbyl is not substituted with trihydrocarbylsiloxy; R<sup>3</sup> is, independently, hydrogen, or a hydrocarbyl, substituted hydrocarbyl, halocarbyl, or substituted halocarbyl provided that a substituted hydrocarbyl is not substituted with trihydrocarbylsiloxy, or R<sup>3</sup> is a substituted hydrocarbyl group containing a heteroatom or silicon atom directly bonded to G, E or the indicated carbon atom; R<sup>22</sup> is, independently, hydrogen, or a hydrocarbyl, substituted hydrocarbyl, halocarbyl, or substituted halocarbyl provided that a substituted hydrocarbyl is not substituted with trihydrocarbylsiloxy;

and where

R<sup>1</sup>, R<sup>2</sup> and/or R<sup>3</sup> groups on the same atom, adjacent atoms or those separated by one additional atom may join together to form a substituted or unsubstituted, saturated, partially unsaturated or aromatic cyclic or polycyclic ring structure provided that for L1, both pair of R<sup>1</sup> and R<sup>2</sup> do not join to form a substituted or unsubstituted pyridine, pyrazine, pyrimidine or benzimidazole ring;

 $R^{22}$  and  $R^3$  may join together to form a substituted or unsubstituted, saturated, partially unsaturated or aromatic heterocyclic ring structure provided that for L21 and L22,  $R^1$  and  $R^2$  do not join to form a substituted or unsubstituted pyridine, pyrazine, pyrimidine or

benzimidazole ring; and

two R<sup>2</sup> bonded to the same atom together may form an –one (=O), a thione (=S), an –imine (=NR'''), or a –carbene (=CR'''<sub>2</sub>) group where R''' is independently, hydrogen, hydrocarbyl, substituted hydrocarbyl, halocarbyl or substituted halocarbyl and two or more R''' on the same carbon may join together to form a substituted or unsubstituted, saturated, partially unsaturated, or aromatic cyclic or polycyclic substituent.

The compound of claim 6, where R<sup>1</sup> is selected from the (Previously presented) 8. group consisting of: all isomers and hydrocarbyl substituted isomers of propyl, butyl, pentyl, hexyl, heptyl, octyl, nonyl, decyl, undecyl, dodecyl, tridecyl, tetradecyl, pentadecyl, hexadecyl, heptadecyl, octadecyl, nonadecyl, eicosyl, heneicosyl, docosyl, tricosyl, tetracosyl, pentacosyl, hexacosyl, heptacosyl, octacosyl, nonacosyl, triacontyl, propenyl, butenyl, pentenyl, hexenyl, heptenyl, octenyl, nonenyl, decenyl, undecenyl, dodecenyl, tridecenyl, tetradecenyl, pentadecenyl, hexadecenyl, heptadecenyl, octadecenyl, nonadecenyl, eicosenyl, heneicosenyl, docosenyl, tricosenyl, tetracosenyl, pentacosenyl, hexacosenyl, heptacosenyl, octacosenyl, nonacosenyl, triacontenyl, propynyl, butynyl, pentynyl, hexynyl, heptynyl, octynyl, nonynyl, decynyl, undecynyl, dodecynyl, tridecynyl, tetradecynyl, pentadecynyl, hexadecynyl, heptadecynyl, octadecynyl, nonadecynyl, eicosynyl, heneicosynyl, docosynyl, tricosynyl, tetracosynyl, pentacosynyl, hexacosynyl, heptacosynyl, octacosynyl, nonacosynyl, and triacontynyl; perfluoropropyl, perfluorobutyl, perfluoropentyl, perfluorohexyl, perfluoroheptyl, perfluorooctyl, perfluorononyl, perfluorodecyl, perfluoroundecyl, perfluorododecyl, perfluorotridecyl, perfluorotetradecyl, perfluoropentadecyl, perfluorohexadecyl, perfluoroheptadecyl, perfluorooctadecyl, perfluorononadecyl, perfluoroeicosyl, perfluoroheneicosyl, perfluorodocosyl, perfluorotricosyl, perfluorotetracosyl, perfluoropentacosyl, perfluorohexacosyl, perfluoroheptacosyl, perfluorooctacosyl, perfluorononacosyl, perfluorotriacontyl, perfluorobutenyl, perfluorobutynyl, fluoropropyl, fluorobutyl, fluoropentyl, fluorohexyl, fluorobetyl, fluorooctyl, fluorooctyl, fluorodecyl, fluoroundecyl, fluorododecyl, fluorotridecyl, fluorotetradecyl, fluoropentadecyl,

fluorohexadecyl, fluorooetadecyl, fluorooctadecyl, fluorononadecyl, fluoroeicosyl, fluoroheneicosyl, fluorodocosyl, fluorotricosyl, fluorotetracosyl, fluoropentacosyl, fluorohexacosyl, fluoroheptacosyl, fluorooctacosyl, fluorononacosyl, fluorotriacontyl, difluorobutyl, trifluorobutyl, tetrafluorobutyl, pentafluorobutyl, hexafluorobutyl, heptafluorobutyl, octafluorobutyl; methoxypropyl, methoxybutyl, methoxypentyl, methoxyhexyl, methoxyheptyl, methoxyoctyl, methoxynonyl, methoxydecyl, methoxyundecyl, methoxydodecyl, methoxytridecyl, methoxytetradecyl, methoxypentadecyl, methoxyhexadecyl, methoxyheptadecyl, methoxyoctadecyl, methoxynonadecyl, methoxyeicosyl, methoxyheneicosyl, methoxydocosyl, methoxytricosyl, methoxytetracosyl, methoxypentacosyl, methoxyhexacosyl, methoxyheptacosyl, methoxyoctacosyl, methoxynonacosyl, methoxytriacontyl, butoxypropyl, butoxybutyl, butoxypentyl, butoxyhexyl, butoxyheptyl, butoxyoctyl, butoxynonyl, butoxydecyl, butoxyundecyl, butoxydodecyl, butoxytridecyl, butoxytetradecyl, butoxypentadecyl, butoxyhexadecyl, butoxyheptadecyl, butoxyoctadecyl, butoxynonadecyl, butoxyeicosyl, butoxyheneicosyl, butoxydocosyl, butoxytricosyl, butoxytetracosyl, butoxypentacosyl, butoxyhexacosyl, butoxyheptacosyl, butoxyoctacosyl, butoxynonacosyl, butoxytriacontyl, dimethylaminopropyl, dimethylaminobutyl, dimethylaminopentyl, dimethylaminohexyl, dimethylaminoheptyl, dimethylaminooctyl, dimethylaminononyl, dimethylaminodecyl, dimethylaminoundecyl, dimethylaminododecyl, dimethylaminotridecyl, dimethylaminotetradecyl, dimethylaminopentadecyl, dimethylaminohexadecyl, dimethylaminoheptadecyl, dimethylaminooctadecyl, dimethylaminononadecyl, dimethylaminoeicosyl, dimethylaminoheneicosyl, dimethylaminodocosyl, dimethylaminotricosyl, dimethylaminotetracosyl, dimethylaminopentacosyl, dimethylaminohexacosyl, dimethylaminoheptacosyl, dimethylaminooctacosyl, dimethylaminononacosyl, dimethylaminotriacontyl, trimethylsilylpropyl, trimethylsilylbutyl, trimethylsilylpentyl, trimethylsilylhexyl, trimethylsilylheptyl, trimethylsilyloctyl, trimethylsilylnonyl, trimethylsilyldecyl, trimethylsilylundecyl, trimethylsilyldodecyl, trimethylsilyltridecyl, trimethylsilyltetradecyl, trimethylsilylpentadecyl, trimethylsilylhexadecyl, trimethylsilylheptadecyl, trimethylsilyloctadecyl, trimethylsilylnonadecyl,

trimethylsilyleicosyl, trimethylsilylheneicosyl, trimethylsilyldocosyl, trimethylsilyltricosyl, trimethylsilyltetracosyl, trimethylsilylpentacosyl, trimethylsilylhexacosyl, trimethylsilylheptacosyl, trimethylsilyloctacosyl, trimethylsilylnonacosyl, trimethylsilyltriacontyl, methylphenyl, dimethylphenyl, trimethylphenyl, tetramethylphenyl, pentamethylphenyl ethylphenyl, diethylphenyl, triethylphenyl, tetraethylphenyl, pentaethylphenyl, propylphenyl, dipropylphenyl, tripropylphenyl, tetrapropylphenyl, pentapropylphenyl butylphenyl, dibutylphenyl, tributylphenyl, tetrabutylphenyl, pentabutylphenyl, hexylphenyl, dihexylphenyl, trihexylphenyl, tetrahexylphenyl, pentahexylphenyl, dimethylethylphenyl, dimethylpropylphenyl, dimethylbutylphenyl, dimethylpentylphenyl, dimethylhexylphenyl, diethylmethylphenyl, diethylpropylphenyl, diethylbutylphenyl, diethylpentylphenyl, diethylhexylphenyl, dipropylmethylphenyl, dipropylethylphenyl, dipropylbutylphenyl, dipropylpentylphenyl, dipropylhexylphenyl, dibutylmethylphenyl, dibutylethylphenyl, dibutylpropylphenyl, dibutylpentylphenyl, dibutylhexylphenyl, methylethylphenyl, methylpropylphenyl, methylbutylphenyl, methylpentylphenyl, methylpenyl, methylpenyl, ethylpropylphenyl, ethylbutylphenyl, ethylpentylphenyl, ethylphenyl, propylbutylphenyl, propylpentylphenyl, propylhexylphenyl, butylpentylphenyl, butylhexylphenyl, methoxyphenyl, ethoxyphenyl, propoxyphenyl, butoxyphenyl, pentoxyphenyl, hexoxyphenyl, dimethoxyphenyl, phenoxyphenyl, methylmethoxyphenyl, dimethylaminophenyl, dipropylaminophenyl, bis(dimethylamino)phenyl, methyl(dimethylamino)phenyl, trimethylsilylphenyl, trimethylgermylphenyl, trifluoromethylphenyl, bis(triflouromethyl)phenyl, trifluoromethoxyphenyl, halophenyl, dihalophenyl, trihalophenyl, tetrahalophenyl, and pentahalophenyl, halomethylphenyl, dihalomethylphenyl, trihalomethylphenyl, tetrahalomethylphenyl, haloethlyphenyl, dihaloethylphenyl, trihaloethylphenyl, tetrahaloethylphenyl, halopropylphenyl, dihalopropylphenyl, trihalopropylphenyl, tetrahalopropylphenyl, halobutylphenyl, dihalobutylphenyl, trihalobutylphenyl, tetrahalobutylphenyl, dihalodimethylphenyl, dihalo(trifluoromethyl)phenyl (where halo is, independently, fluoro, chloro, bromo and iodo), methylbenzyl, dimethylbenzyl, trimethylbenzyl, tetramethylbenzyl, pentamethylbenzyl ethylbenzyl, diethylbenzyl, triethylbenzyl, tetraethylbenzyl,

pentaethylbenzyl, propylbenzyl, dipropylbenzyl, tripropylbenzyl, tetrapropylbenzyl, pentapropylbenzyl butylbenzyl, dibutylbenzyl, tributylbenzyl, tetrabutylbenzyl, pentabutylbenzyl, hexylbenzyl, dihexylbenzyl, trihexylbenzyl, tetrahexylbenzyl, pentahexylbenzyl, dimethylethylbenzyl, dimethylpropylbenzyl, dimethylbutylbenzyl, dimethylpentylbenzyl, dimethylhexylbenzyl, diethylmethylbenzyl, diethylpropylbenzyl, diethylbutylbenzyl, diethylpentylbenzyl, diethylhexylbenzyl, dipropylmethylbenzyl, dipropylethylbenzyl, dipropylbutylbenzyl, dipropylpentylbenzyl, dipropylhexylbenzyl, dibutylmethylbenzyl, dibutylethylbenzyl, dibutylpropylbenzyl, dibutylpentylbenzyl, dibutylhexylbenzyl, methylethylbenzyl, methylpropylbenzyl, methylbutylbenzyl, methylpentylbenzyl, methylhexylbenzyl, ethylpropylbenzyl, ethylbutylbenzyl, ethylpentylbenzyl, ethylhexylbenzyl, propylbutylbenzyl, propylpentylbenzyl, propylhexylbenzyl, butylpentylbenzyl, butylhexylbenzyl, methoxybenzyl, ethoxybenzyl, propoxybenzyl, butoxybenzyl, pentoxybenzyl, hexoxybenzyl, dimethoxybenzyl, phenoxybenzyl, methylmethoxybenzyl, dimethylaminobenzyl, dipropylaminobenzyl, bis(dimethylamino)benzyl, methyl(dimethylamino)benzyl, trifluoromethylbenzyl, bis(trifluoromethylbenzyl), trifluoromethyoxybenzyl, trimethylsilylbenzyl, bis(trimethylsilyl)benzyl, trimethylgermylbenzyl, diphenylmethyl, trimethylsilyl, trimethylgermyl, trimethylstannyl, trimethylplumbyl, triethylsilyl, triethylgermyl, dimethylethylsilyl, dimethylethylgermyl, diethylmethylsilyl, diethylmethylgermyl, triphenylsilyl, triphenylgermyl, triphenoxysilyl, triphenoxygermyl, trimethoxysilyl, trimethoxygermyl, triethoxysilyl, triethoxygermyl, and all isomers of tripropylsilyl, tripropylgermyl, tributylsilyl, tributylgermyl, tripropoxysilyl, tripropoxygermyl, tributoxysilyl, tributoxygermyl, tris(trifluormethyl)silyl, bis(perfluoromethyl)methylsilyl, pyrenyl, aceanthrylenyl, acenaphthylene, acephenanthrylenyl, azulenyl biphenylenyl, chrysenyl, coronenyl, fluoranthenyl, fluorenyl, heptacenyl, heptalenyl, heptaphenyl, hexacenyl, hexaphenyl, as-indacenyl, s-indecenyl, indenyl, ovalenyl, pentacenyl, pentalenyl, pentaphenyl, perylenyl, phenalenyl, phenanthrenyl, picenyl, pleiadenyl, pyranhrenyl, rubicenyl, naphthacenyl, tetraphenylenyl, trinaphthylenyl, triphenylenyl, hexahelicenyl, naphthyl, anthracenyl, dibenza[a,b]anthracenyl, indanyl, acenaphthenyl, cholanthrenyl, aceanthrenyl, acephenanthrenyl, 1,2,3,4-tetrahydronapthalene, fullerenyl,

cyclopropyl, cyclobutyl, cyclopentyl, cyclohexyl, cyclohexenyl, cycloheptyl, cycloctyl, cyclononyl, cyclodecyl, cycloundecyl, and cyclododecyl, dimethylcyclohexyl, norbornyl, norbornenyl, adamantyl, cubanyl, prismanyl, spiro[4,5]decanyl, biphenyl, bicyclopentyl, terphenyl, quatercyclohexanyl, binaphthyl, binorbornyl, phenyl-terphenyl, 1,1diphenylmethano, 1,1-dinapthyletheno, acridarsinyl, acridinyl, acridophosphinyl, 1Hacrindolinyl, anthrazinyl, anthyridinyl, arsanthridinyl, arsindolyl, arsindolizinyl, arsinolinyl, arsinolizinyl, benzofuranyl, carbazolyl, β-carbolinyl, chromenyl, thiochromenyl, cinnolinyl, furanyl, imidazolyl, indazolyl, indolyl, indolizinyl, isoarsindolyl, isoarsinolinyl, isobenzofuranyl, isochromenyl, isothiochromenyl, isoindolyl, isophosphindolyl, isophosphinolinyl, isoquinolinyl, isothiazolyl, isoxazolyl, naphthyridinyl, oxazolyl, perimidinyl, phenanthrazinyl, phenanthridinyl, phenanthrolinyl, phenazinyl, phosphanthridinyl, phosphindolyl, phosphindolizinyl, phosphinolizinyl, phthalazinyl, pteridinyl, phthaloperinyl, purinyl, pyranyl, thiopyranal, pyrazinyl, pyrazolyl, pyridazinyl, pyridinyl, pyrindinyl, pyrimidinyl, pyrrolyl, pyrrolizinyl, quinazolinyl, quindolinyl, 1H-quinindolinyl, quinolinyl, quinolizinyl, quinoxalinyl, selenophenyl, thebenidinyl, thiazolyl, thiophenyl, triphenodioxazinyl, triphenodithiazinyl, xanthenyl, chromanyl, thiochromanyl, imidazolidinyl, indolinyl, isochromanyl, isothiochromanyl, isoindolinyl, morpholinyl, piperazinyl, piperidinyl, pyrozolidinyl, pyrrolidinyl, quinuclidinyl, dimethylacridarsinyl, dimethylacridinyl, dimethylacridophosphinyl, dimethyl-1*H*-acrindolinyl, dimethylanthrazinyl, dimethylanthyridinyl, dimethylarsanthridinyl, dimethylarsindolyl, dimethylarsindolizinyl, dimethylarsinolinyl, dimethylarsinolizinyl, dibutylbenzofuranyl, dibutylcarbazolyl, dibutyl-\(\beta\)-carbolinyl, dibutylchromenyl, dibutylthiochromenyl, butylcinnolinyl, dibutylfuranyl, dimethylimidazolyl, dimethylindazolyl, dipropylindolyl, dipropylindolizinyl, dimethylisoarsindolyl, methylisoarsinolinyl, dimethylisobenzofuranyl, diphenylisochromenyl, dibutylisothiochromenyl, phenylisoindolyl, butylisophosphindolyl, dibutylisophosphinolinyl, dimethylisoquinolinyl, methylisothiazolyl, butylisoxazolyl, butylnaphthyridinyl, dimethyloxazolyl, methylphenylperimidinyl, tetrabutylphenanthrazinyl, propylphenanthridinyl, dibutylphenanthrolinyl, tetramethylphenazinyl,

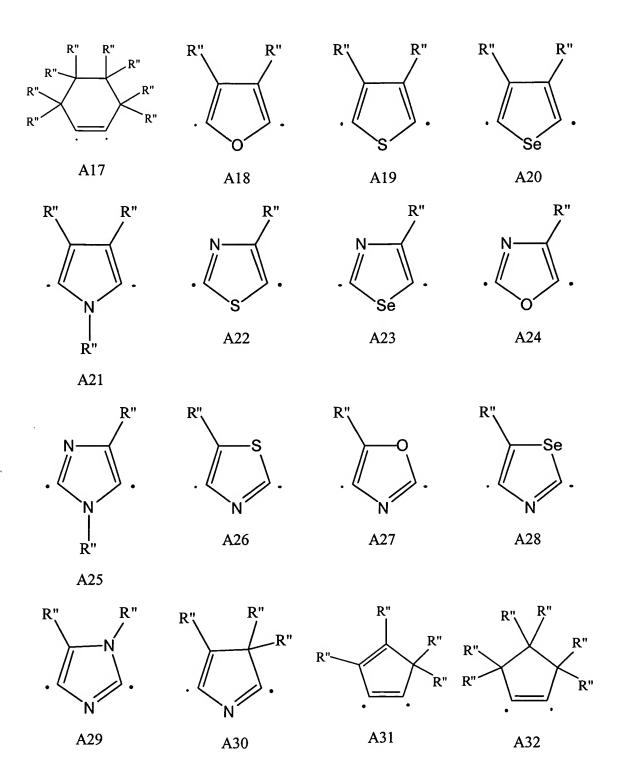
butylphosphanthridinyl, phenylphosphindolyl, dimethylphosphindolizinyl, methylphosphinolizinyl, dibutylphthalazinyl, trimethylpteridinyl, methylphthaloperinyl, dimethylpurinyl, dibutylpyranyl, dibutylthiopyranal, trimethylpyrazinyl, phenylpyrazolyl, dipropylpyridazinyl, dimethylpyridinyl, methylpropylpyrindinyl, triethylpyrimidinyl, dibutylpyrrolyl, diethylpyrrolizinyl, dibutylquinazolinyl, dibutylquindolinyl, dibutyl-1*H*-quinindolinyl, dimethylquinolinyl, propylquinolizinyl, methylquinoxalinyl, methylbutylselenophenyl, methylthebenidinyl, dimethylthiazolyl, trimethylthiophenyl, dibutyltriphenodioxazinyl, dibutyltriphenodithiazinyl, dibutylxanthenyl, trimethylchromanyl, dimethylthiochromanyl, dimethylimidazolidinyl, dimethylindolinyl, dibutylisochromanyl, dibutylisothiochromanyl, phenylisoindolinyl, dibutylmorpholinyl, dimethylpiperazinyl, dimethylpiperidinyl, dimethylpyrozolidinyl, dimethylpyrrolidinyl, bipyridyl, pyrido[2,1,6-de]quinolizinyl, hexamethylquinuclidinyl, 5,7-dioxa-6-phosphadibenzo[a,c]cycloheptene-6-oxide, and 9-oxa-10-phosphaphenanthrene-10-oxide.

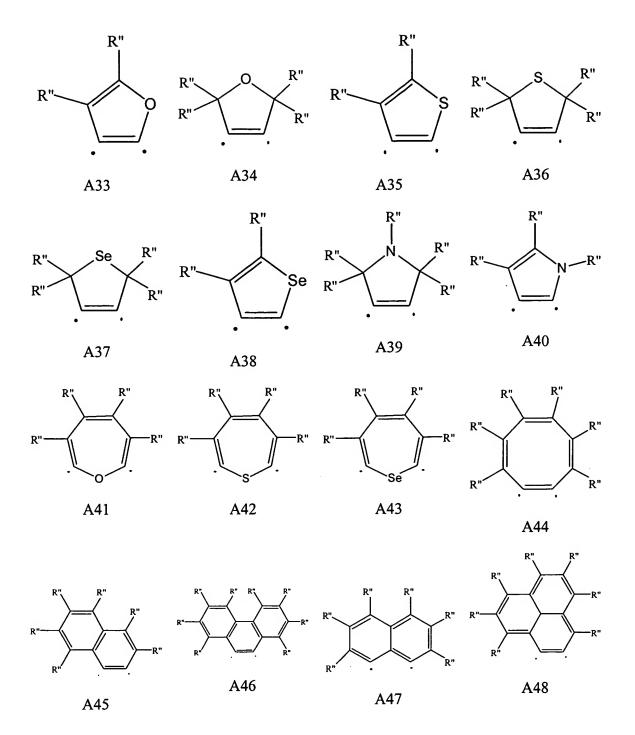
9. (Original) The compound of claim 6 where A is represented by the following formulae:

R'<sub>2</sub>C, R'<sub>2</sub>Si, R'<sub>2</sub>CG, R'<sub>2</sub>CCR'<sub>2</sub>, R'<sub>2</sub>CCR'<sub>2</sub>CR'<sub>2</sub>, R'<sub>2</sub>CCR'<sub>2</sub>CR'<sub>2</sub>, R'C=CR', R'C=CR', R'C=CR', R'C=CR', R'C=CR', R'C=CR', R'C=CR', R'C=CR', R'<sub>2</sub>CSiR'<sub>2</sub>, R'<sub>2</sub>CSiR'<sub>2</sub>, R'<sub>2</sub>SiSiR'<sub>2</sub>, R'<sub>2</sub>CSiR'<sub>2</sub>CR'<sub>2</sub>, R'<sub>2</sub>SiCR'<sub>2</sub>SiR'<sub>2</sub>, R'C=CR'SiR'<sub>2</sub>, R'<sub>2</sub>CGeR'<sub>2</sub>, R'<sub>2</sub>GeGeR'<sub>2</sub>, R'<sub>2</sub>GeGeR'<sub>2</sub>, R'<sub>2</sub>CGeR'<sub>2</sub>CR'<sub>2</sub>, R'<sub>2</sub>GeCR'<sub>2</sub>GeR'<sub>2</sub>, R'<sub>2</sub>SiGeR'<sub>2</sub>, R'C=CR'GeR'<sub>2</sub>, R'B, R'<sub>2</sub>C-BR', R'<sub>2</sub>C-BR'-CR'<sub>2</sub>, R'N, R'P, O, S, Se, C(=O)C(=O), R'<sub>2</sub>CC(=O), R'<sub>2</sub>CC(=O)CR'<sub>2</sub>, R'<sub>2</sub>C-O-CR'<sub>2</sub>CR'<sub>2</sub>, R'<sub>2</sub>C-O-CR'<sub>2</sub>CR'<sub>2</sub>, R'<sub>2</sub>C-O-CR'<sub>2</sub>CR'<sub>2</sub>, R'<sub>2</sub>C-S-CR'<sub>2</sub>, R'<sub>2</sub>C-S-CR'<sub>2</sub>, R'<sub>2</sub>C-S-CR'<sub>2</sub>, R'<sub>2</sub>C-S-CR'<sub>2</sub>CR'<sub>2</sub>, R'<sub>2</sub>C-S-CR'<sub>2</sub>CR'<sub>2</sub>, R'<sub>2</sub>C-S-CR'<sub>2</sub>CR'<sub>2</sub>, R'<sub>2</sub>C-S-CR'<sub>2</sub>CR'<sub>2</sub>, R'<sub>2</sub>C-S-CR'<sub>2</sub>CR'<sub>2</sub>, R'<sub>2</sub>C-S-CR'<sub>2</sub>CR'<sub>2</sub>, R'<sub>2</sub>C-S-CR'<sub>2</sub>CR'<sub>2</sub>, R'<sub>2</sub>C-N-CR'<sub>2</sub>CR'<sub>2</sub>, R'<sub>2</sub>C-N-CR'<sub>2</sub>CR'<sub>2</sub>CR'<sub>2</sub>C-N-CR'<sub>2</sub>CR'<sub>2</sub>CR'<sub>2</sub>C-N-CR'<sub>2</sub>CR'<sub>2</sub>CR'<sub>2</sub>C-N-CR'<sub>2</sub>CR'<sub>2</sub>CR'<sub>2</sub>C-N-CR'<sub>2</sub>CR'<sub>2</sub>C-N-CR'<sub>2</sub>CR'<sub>2</sub>CR'<sub>2</sub>C-N-CR'<sub>2</sub>CR'<sub>2</sub>C-N-CR'<sub>2</sub>CR'<sub>2</sub>CR'<sub>2</sub>C-N-CR'<sub>2</sub>CR'<sub>2</sub>CR'<sub>2</sub>C-N-CR'<sub>2</sub>CR'<sub>2</sub>CR'<sub>2</sub>C-N-CR'<sub>2</sub>CR'<sub>2</sub>

substituent.

## 10. (Original) The compound of claim 6 where A is represented by the formulae:





$$R''$$
 $R''$ 
 $R''$ 

where R" is, independently, hydrogen, hydrocarbyl, substituted hydrocarbyl, halocarbyl or substituted halocarbyl provided that a substituted hydrocarbyl is not substituted with trihydrocarbylsiloxy, and two or more R" on the same carbon or adjacent R" may join together to form a substituted or unsubstituted, saturated, partially unsaturated, or aromatic cyclic or polycyclic substituent and where the bonding points are designated by the dots.

11. (Previously presented) The compound of claim 6 where R<sup>1</sup> is represented by the formulae:

$$R^{13}$$
 $R^{13}$ 
 $R^{11}$ 
 $R^{13}$ 
 $R^{11}$ 
 $R^{13}$ 
 $R^{12}$ 
 $R^{13}$ 
 $R^{12}$ 
 $R^{13}$ 
 $R^{11}$ 
 $R^{12}$ 
 $R^{13}$ 
 $R^{12}$ 
 $R^{13}$ 
 $R^{14}$ 
 $R^{15}$ 
 $R^{15}$ 

where R<sup>10</sup>, R<sup>11</sup>, R<sup>12</sup>, and R<sup>13</sup> are, independently, hydrogen, hydrocarbyl radicals, substituted hydrocarbyl radicals, halocarbyl radicals, substituted halocarbyl radicals, silylcarbyl radicals or polar radicals and

R<sup>10</sup>, R<sup>11</sup>, R<sup>12</sup>, and/or R<sup>13</sup> on the same atom or adjacent atoms may join together to form a substituted or unsubstituted saturated, partially unsaturated or aromatic cyclic or polycyclic ring structure.

12. (Original) The composition of claim 11 wherein R<sup>10</sup>, R<sup>11</sup>, R<sup>12</sup>, and R<sup>13</sup> are, independently selected from the group consisting of: hydrogen, methyl, ethyl, ethenyl, ethynyl and all isomers of propyl, butyl, pentyl, hexyl, heptyl, octyl, nonyl, decyl, undecyl, dodecyl, tridecyl, tetradecyl, pentadecyl, hexadecyl, heptadecyl, octadecyl, nonadecyl, eicosyl, heneicosyl, docosyl, tricosyl, tetracosyl, pentacosyl, hexacosyl, heptacosyl, octacosyl, nonacosyl, triacontyl, propenyl, butenyl, pentenyl, hexenyl, heptenyl, octenyl, nonenyl, decenyl, undecenyl, dodecenyl, tridecenyl, tetradecenyl, pentadecenyl, hexadecenyl, heptadecenyl, octadecenyl, nonadecenyl, eicosenyl, heneicosenyl, docosenyl, tricosenyl, tetracosenyl, pentacosenyl, hexacosenyl, heptacosenyl, octacosenyl, nonacosenyl, triacontenyl, propynyl, butynyl, pentynyl, hexynyl, heptynyl, octynyl, nonynyl, decynyl, undecynyl, dodecynyl, tridecynyl,

tetradecynyl, pentadecynyl, hexadecynyl, heptadecynyl, octadecynyl, nonadecynyl, eicosynyl, heneicosynyl, docosynyl, tricosynyl, tetracosynyl, pentacosynyl, hexacosynyl, heptacosynyl, octacosynyl, nonacosynyl, triacontynyl, perfluoropropyl, perfluorobutyl, perfluoropentyl, perfluorohexyl, perfluoroheptyl, perfluorooctyl, perfluorononyl, perfluorodecyl, perfluoroundecyl, perfluorododecyl, perfluorotridecyl, perfluorotetradecyl, perfluoropentadecyl, perfluorohexadecyl, perfluoroheptadecyl, perfluorooctadecyl, perfluorononadecyl, perfluoroeicosyl, perfluoroheneicosyl, perfluorodocosyl, perfluorotricosyl, perfluorotetracosyl, perfluoropentacosyl, perfluorohexacosyl, perfluoroheptacosyl, perfluorooctacosyl, perfluorononacosyl, perfluorotriacontyl, perfluorobutenyl, perfluorobutynyl, fluoropropyl, fluorobutyl, fluoropentyl, fluorohexyl, fluoroheptyl, fluorooctyl, fluorononyl, fluorodecyl, fluoroundecyl, fluorododecyl, fluorotridecyl, fluorotetradecyl, fluoropentadecyl, fluorohexadecyl, fluoroheptadecyl, fluorooctadecyl, fluorononadecyl, fluoroeicosyl, fluoroheneicosyl, fluorodocosyl, fluorotricosyl, fluorotetracosyl, fluoropentacosyl, fluorohexacosyl, fluorohexacosyl, fluorooctacosyl, fluorononacosyl, fluorotriacontyl, difluorobutyl, trifluorobutyl, tetrafluorobutyl, pentafluorobutyl, hexafluorobutyl, heptafluorobutyl, octafluorobutyl, methoxypropyl, methoxybutyl, methoxypentyl, methoxyhexyl, methoxyheptyl, methoxyoctyl, methoxynonyl, methoxydecyl, methoxyundecyl, methoxydodecyl, methoxytridecyl, methoxytetradecyl, methoxypentadecyl, methoxyhexadecyl, methoxyheptadecyl, methoxyoctadecyl, methoxynonadecyl, methoxyeicosyl, methoxyheneicosyl, methoxydocosyl, methoxytricosyl, methoxytetracosyl, methoxytetracosyl, methoxytetracosyl, methoxyheptacosyl, methoxyoctacosyl, methoxynonacosyl, methoxytriacontyl, butoxypropyl, butoxybutyl, butoxypentyl, butoxyhexyl, butoxyheptyl, butoxyoctyl, butoxynonyl, butoxydecyl, butoxyundecyl, butoxydodecyl, butoxytridecyl, butoxytetradecyl, butoxypentadecyl, butoxyhexadecyl, butoxyheptadecyl, butoxyoctadecyl, butoxynonadecyl, butoxyeicosyl, butoxyheneicosyl, butoxydocosyl, butoxytricosyl, butoxytetracosyl, butoxypentacosyl, butoxyhexacosyl, butoxyheptacosyl, butoxyoctacosyl, butoxynonacosyl, butoxytriacontyl, dimethylaminopropyl, dimethylaminobutyl, dimethylaminopentyl, dimethylaminohexyl, dimethylaminohexyl,

dimethylaminooctyl, dimethylaminononyl, dimethylaminodecyl, dimethylaminoundecyl, dimethylaminododecyl, dimethylaminotridecyl, dimethylaminotetradecyl, dimethylaminopentadecyl, dimethylaminohexadecyl, dimethylaminoheptadecyl, dimethylaminooctadecyl, dimethylaminononadecyl, dimethylaminoeicosyl, dimethylaminoheneicosyl, dimethylaminodocosyl, dimethylaminotricosyl, dimethylaminotetracosyl, dimethylaminopentacosyl, dimethylaminohexacosyl, dimethylaminoheptacosyl, dimethylaminooctacosyl, dimethylaminononacosyl, dimethylaminotriacontyl, trimethylsilylpropyl, trimethylsilylbutyl, trimethylsilylpentyl, trimethylsilylhexyl, trimethylsilylheptyl, trimethylsilyloctyl, trimethylsilylnonyl, trimethylsilyldecyl, trimethylsilylundecyl, trimethylsilyldodecyl, trimethylsilyltridecyl, trimethylsilyltetradecyl, trimethylsilylpentadecyl, trimethylsilylhexadecyl, trimethylsilylheptadecyl, trimethylsilyloctadecyl, trimethylsilylnonadecyl, trimethylsilyleicosyl, trimethylsilylheneicosyl, trimethylsilyldocosyl, trimethylsilyltricosyl, trimethylsilyltetracosyl, trimethylsilylpentacosyl, trimethylsilylhexacosyl, trimethylsilylheptacosyl, trimethylsilyloctacosyl, trimethylsilylnonacosyl, trimethylsilyltriacontyl, phenyl, methylphenyl, dimethylphenyl, trimethylphenyl, tetramethylphenyl, pentamethylphenyl ethylphenyl, diethylphenyl, triethylphenyl, tetraethylphenyl, pentaethylphenyl, propylphenyl, dipropylphenyl, tripropylphenyl, tetrapropylphenyl, pentapropylphenyl butylphenyl, dibutylphenyl, tributylphenyl, tetrabutylphenyl, pentabutylphenyl, hexylphenyl, dihexylphenyl, trihexylphenyl, tetrahexylphenyl, pentahexylphenyl, dimethylethylphenyl, dimethylpropylphenyl, dimethylbutylphenyl, dimethylpentylphenyl, dimethylhexylphenyl, diethylmethylphenyl, diethylpropylphenyl, diethylbutylphenyl, diethylpentylphenyl, diethylhexylphenyl, dipropylmethylphenyl, dipropylethylphenyl, dipropylbutylphenyl, dipropylpentylphenyl, dipropylhexylphenyl, dibutylmethylphenyl, dibutylethylphenyl, dibutylpropylphenyl, dibutylpentylphenyl, dibutylhexylphenyl, methylethylphenyl, methylpropylphenyl, methylbutylphenyl, methylpentylphenyl, methylhexylphenyl, ethylpropylphenyl, ethylbutylphenyl, ethylpentylphenyl, ethylhexylphenyl, propylbutylphenyl, propylpentylphenyl, propylhexylphenyl, butylpentylphenyl, butylhexylphenyl, trimethylsilylphenyl, trimethylgermylphenyl, trifluoromethylphenyl,

bis(triflouromethyl)phenyl, halophenyl, dihalophenyl, trihalophenyl, tetrahalophenyl, pentahalophenyl; halomethylphenyl, dihalomethylphenyl, trihalomethylphenyl, tetrahalomethylphenyl, haloethlyphenyl, dihaloethylphenyl, trihaloethylphenyl, tetrahaloethylphenyl, halopropylphenyl, dihalopropylphenyl, trihalopropylphenyl, tetrahalopropylphenyl, halobutylphenyl, dihalobutylphenyl, trihalobutylphenyl, tetrahalobutylphenyl, dihalodimethylphenyl, dihalo(trifluoromethyl)phenyl (where halo is, independently, fluoro, chloro, bromo and iodo), benzyl, methylbenzyl, dimethylbenzyl, trimethylbenzyl, tetramethylbenzyl, pentamethylbenzyl, diethylbenzyl, diethylbenzyl, triethylbenzyl, tetraethylbenzyl, pentaethylbenzyl, propylbenzyl, dipropylbenzyl, tripropylbenzyl, tetrapropylbenzyl, pentapropylbenzyl butylbenzyl, dibutylbenzyl, tributylbenzyl, tetrabutylbenzyl, pentabutylbenzyl, hexylbenzyl, dihexylbenzyl, trihexylbenzyl, tetrahexylbenzyl, pentahexylbenzyl, dimethylethylbenzyl, dimethylpropylbenzyl, dimethylbutylbenzyl, dimethylpentylbenzyl, dimethylpenzyl, dimethylbenzyl, diethylmethylbenzyl, diethylpropylbenzyl, diethylpropylbenzyl, diethylpentylbenzyl, diethylhexylbenzyl, dipropylmethylbenzyl, dipropylethylbenzyl, dipropylbutylbenzyl, dipropylpentylbenzyl, dipropylhexylbenzyl, dibutylmethylbenzyl, dibutylethylbenzyl, dibutylpropylbenzyl, dibutylpentylbenzyl, dibutylhexylbenzyl, methylethylbenzyl, methylpropylbenzyl, methylbutylbenzyl, methylpentylbenzyl, methylpenzyl, ethylpropylbenzyl, ethylbutylbenzyl, ethylpentylbenzyl, ethylhexylbenzyl, propylbutylbenzyl, propylpentylbenzyl, propylhexylbenzyl, butylpentylbenzyl, butylhexylbenzyl, trimethylsilylbenzyl, bis(trimethylsilyl)benzyl, trimethylgermylbenzyl, diphenylmethyl, trimethylsilyl, trimethylgermyl, trimethylstannyl, trimethylplumbyl, triethylsilyl, triethylgermyl, dimethylethylsilyl, dimethylethylgermyl, diethylmethylsilyl, diethylmethylgermyl, triphenylsilyl, triphenylgermyl, tripropylsilyl, tripropylgermyl, tributylsilyl, tributylgermyl, tris(trifluormethyl)silyl, bis(perfluoromethyl)methylsilyl, pyrenyl, aceanthrylenyl, acenaphthylene, acephenanthrylenyl, azulenyl biphenylenyl, chrysenyl, coronenyl, fluoranthenyl, fluorenyl, heptalenyl, heptalenyl, heptaphenyl, hexacenyl, hexaphenyl, as-indacenyl, s-indecenyl, indenyl, ovalenyl, pentacenyl, pentalenyl, pentaphenyl, perylenyl, phenalenyl, phenanthrenyl, picenyl, pleiadenyl, pyranhrenyl, rubicenyl, naphthacenyl, tetraphenylenyl, trinaphthylenyl, triphenylenyl,

hexahelicenyl, naphthyl, anthracenyl, dibenza[a,b]anthracenyl, indanyl, acenaphthenyl, cholanthrenyl, aceanthrenyl, acephenanthrenyl, 1,2,3,4-tetrahydronapthalene, fullerenyl, cyclopropyl, cyclobutyl, cyclopentyl, cyclohexyl, cyclohexenyl, cycloheptyl, cycloctyl, cyclononyl, cyclodecyl, cycloundecyl, and cyclododecyl, dimethylcyclohexyl, norbornyl, norbornenyl, adamantyl, cubanyl, prismanyl, spiro[4,5]decanyl, biphenyl, bicyclopentyl, terphenyl, quatercyclohexanyl, binaphthyl, binorbornyl, phenyl-terphenyl, 1,1diphenylmethano, 1,1-dinapthyletheno, acridarsinyl, acridinyl, acridophosphinyl, 1Hacrindolinyl, anthrazinyl, anthyridinyl, arsanthridinyl, arsindolyl, arsindolizinyl, arsinolinyl, arsinolizinyl, benzofuranyl, carbazolyl, β-carbolinyl, chromenyl, thiochromenyl, cinnolinyl, furanyl, imidazolyl, indazolyl, indolyl, indolizinyl, isoarsindolyl, isoarsinolinyl, isobenzofuranyl, isochromenyl, isothiochromenyl, isoindolyl, isophosphindolyl, isophosphinolinyl, isoquinolinyl, isothiazolyl, isoxazolyl, naphthyridinyl, oxazolyl, perimidinyl, phenanthrazinyl, phenanthridinyl, phenanthrolinyl, phenazinyl, phosphanthridinyl, phosphindolyl, phosphindolizinyl, phosphinolizinyl, phthalazinyl, pteridinyl, phthaloperinyl, purinyl, pyranyl, thiopyranal, pyrazinyl, pyrazolyl, pyridazinyl, pyridinyl, pyrimidinyl, pyrimidinyl, pyrrolyl, pyrrolizinyl, quinazolinyl, quindolinyl, 1H-quinindolinyl, quinolinyl, quinolizinyl, quinoxalinyl, selenophenyl, thebenidinyl, thiazolyl, thiophenyl, triphenodioxazinyl, triphenodithiazinyl, xanthenyl, chromanyl, thiochromanyl, imidazolidinyl, indolinyl, isochromanyl, isothiochromanyl, isoindolinyl, morpholinyl, piperazinyl, piperidinyl, pyrozolidinyl, pyrrolidinyl, quinuclidinyl, dimethylacridarsinyl, dimethylacridinyl, dimethylacridophosphinyl, dimethyl-1*H*-acrindolinyl, dimethylanthrazinyl, dimethylanthyridinyl, dimethylarsanthridinyl, dimethylarsindolyl, dimethylarsindolizinyl, dimethylarsinolinyl, dimethylarsinolizinyl, dibutylbenzofuranyl, dibutylcarbazolyl, dibutyl-β-carbolinyl, dibutylchromenyl, dibutylthiochromenyl, butylcinnolinyl, dibutylfuranyl, dimethylimidazolyl, dimethylindazolyl, dipropylindolyl, dipropylindolizinyl, dimethylisoarsindolyl, methylisoarsinolinyl, dimethylisobenzofuranyl, diphenylisochromenyl, dibutylisothiochromenyl, phenylisoindolyl, butylisophosphindolyl, dibutylisophosphinolinyl, dimethylisoquinolinyl, methylisothiazolyl, butylisoxazolyl, butylnaphthyridinyl,

dimethyloxazolyl, methylphenylperimidinyl, tetrabutylphenanthrazinyl, propylphenanthridinyl, dibutylphenanthrolinyl, tetramethylphenazinyl, butylphosphanthridinyl, phenylphosphindolyl, dimethylphosphindolizinyl, methylphosphinolizinyl, dibutylphthalazinyl, trimethylpteridinyl, methylphthaloperinyl, dimethylpurinyl, dibutylpyranyl, dibutylthiopyranal, trimethylpyrazinyl, phenylpyrazolyl, dipropylpyridazinyl, dimethylpyridinyl, methylpropylpyrindinyl, triethylpyrimidinyl, dibutylpyrrolyl, diethylpyrrolizinyl, dibutylquinazolinyl, dibutylquindolinyl, dibutyl-1Hquinindolinyl, dimethylquinolinyl, propylquinolizinyl, methylquinoxalinyl, methylbutylselenophenyl, methylthebenidinyl, dimethylthiazolyl, trimethylthiophenyl, dibutyltriphenodioxazinyl, dibutyltriphenodithiazinyl, dibutylxanthenyl, trimethylchromanyl, dimethylthiochromanyl, dimethylimidazolidinyl, dimethylindolinyl, dibutylisochromanyl, dibutylisothiochromanyl, phenylisoindolinyl, dibutylmorpholinyl, dimethylpiperazinyl, dimethylpiperidinyl, dimethylpyrozolidinyl, dimethylpyrrolidinyl, bipyridyl, pyrido[2,1,6-de]quinolizinyl, hexamethylquinuclidinyl, 5,7-dioxa-6phosphadibenzo[a,c]cycloheptene-6-oxide, 9-oxa-10-phosphaphenanthrene-10-oxide, methoxy, ethoxy, propoxy, butoxy, pentoxy, phenoxy, dimethylphenoxy, dimethylamino, diethylamino, dipropylamino, methylethylamino, methylpropylamino, ethylpropylamino, diphenylamino, methylphenylamino, and ethylphenylamino.

- 13. (Original) The compound of claim 11 where at least one R<sup>11</sup> and/or at least one R<sup>12</sup> are independently methyl, ethyl, *n*-propyl, *iso*-propyl, *n*-butyl, *sec*-butyl, *iso*-butyl, *tert*-butyl, phenyl, napthyl, diphenylmethyl, or trifluoromethyl.
- 14. (Currently amended) The compound of claim elaim 1 wherein X is represented by the formulae:

$$R^a$$
 $R^b$ 
 $R^c$ 

where each O is bonded to M, and where Ra, Rb, Rc and Rd are, independently, selected from the group consisting of hydrogen, methyl, ethyl, ethenyl, ethynyl, and all isomers of propyl, butyl, pentyl, hexyl, heptyl, octyl, nonyl, decyl, undecyl, dodecyl, tridecyl, tetradecyl, pentadecyl, hexadecyl, heptadecyl, octadecyl, nonadecyl, eicosyl, heneicosyl, docosyl, tricosyl, tetracosyl, pentacosyl, hexacosyl, heptacosyl, octacosyl, nonacosyl, triacontyl, propenyl, butenyl, pentenyl, hexenyl, heptenyl, octenyl, nonenyl, decenyl, undecenyl, dodecenyl, tridecenyl, tetradecenyl, pentadecenyl, hexadecenyl, heptadecenyl, octadecenyl, nonadecenyl, eicosenyl, heneicosenyl, docosenyl, tricosenyl, tetracosenyl, pentacosenyl, hexacosenyl, heptacosenyl, octacosenyl, nonacosenyl, triacontenyl, propynyl, butynyl, pentynyl, hexynyl, heptynyl, octynyl, nonynyl, decynyl, undecynyl, tridecynyl, tetradecynyl, pentadecynyl, hexadecynyl, heptadecynyl, dodecynyl, octadecynyl, nonadecynyl, eicosynyl, heneicosynyl, docosynyl, tricosynyl, tetracosynyl, pentacosynyl, hexacosynyl, heptacosynyl, octacosynyl, nonacosynyl, and triacontynyl, phenyl, napthyl, anthracenyl, pyrenyl, biphenyl, benzyl, cyclopropyl, cyclobutyl, cyclopentyl, cyclohexyl, cycloheptyl, cyclooctyl, cyclononyl, cyclodecyl, cycloundecyl, cyclododecyl, fluoro, chloro, bromo, iodo, trimethylsilyl, triethylsilyl, tripropylsilyl, dimethylethylsilyl, diethylmethylsilyl, trimethoxysilyl, tirethoxysilyl, tripropoxysilyl, methoxy, ethoxy, propoxy, butoxy, phenoxy, or a nitro, carboxylic acid, ester, ketone (excluding 1,2-diketones) or aldehyde group; and optionally, Ra, Rb, Rc or Rd can connect to form substituted or unsubstituted, saturated, partially unsaturated or aromatic ring structures.

15. (Original) The compound of claim 1 where the transition metal compound is [1,4-bis-(2,6-di-iso-propylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [3,6-di-tert, butylcatecholate],

[1,4-bis-(2,6-di-iso-propylphenyl)-l,4-diaza-l,3-butadiene] nickel(II) [3,6-di-tert-butyl-4-chlorocatecholate],

[1,4-bis-(2,6-di-iso-propylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [3,6-di-tert-butvl-4,5-dichlorocatecholate],

- [1,4-bis-(2,6-di-iso-propylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [3,6-di-tert-butyl-4-fluorocatecholate],
- [1,4-bis-(2,6-di-iso-propylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [3,6-di-tert-butyl-4,5-difluorocatecholate],
- [1,4-bis-(2,6-di-iso-propylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [3,6-di-tert-butyl-4-methoxycatecholate],
- [1,4-bis-(2,6-di-iso-propylphenyl)-l,4-diaza-l,3-butadiene] nickel(II) [3,6-di-tert-butvl-4,5-dimethoxycatecholate],
- [1,4-bis-(2,6-di-iso-propylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [3,6-di-tert-butyl-4-iso-propylcatecholate],
- [1,4-bis-(2,6-di-*iso*-propylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [3,6-di-*tert*-butyl-4-cyclohexylcatecholate],
- [1,4-bis-(2,6-di-iso-propylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [3,5-di-tert-butylcatecholate],
- [1,4-bis-(2,6-di-iso-propylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [3,5-di-tert-butyl-6-chlorocatecholate],
- [1,4-bis-(2,6-di-iso-propylphenyl)-l,4-diaza-l,3-butadiene] nickel(II) [3,5-di-tert-butyl-6-nitrocatecholate],
- [1,4-bis-(2,6-di-iso-propylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [3,4,6-tri-iso-propylcatecholate],
- [1,4-bis-(2,6-di-iso-propylphenyl)-l,4-diaza-l,3-butadiene] nickel(II) [3,6-di-iso-propylcatecholate],
- [1,4-bis-(2,6-di-iso-propylphenyl)-l,4-diaza-l,3-butadiene] nickel( $\Pi$ ) [3,5-dimethylcatecholate],
- [1,4-bis-(2,6-di-iso-propylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [1,4,6,8-tetra-tert-butyldibenzo[1,4]dioxine-2,3-diolate],
- [1,4-bis-(2,6-di-*iso*-propylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [1,4,6,7,8,9-hexachlorodibenzo[1,4]dioxine-2,3-diolate],
- [1,4-bis-(2,6-di-iso-propylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [1,4,6,7,8,9-hexabromodibenzo[1,4]dioxine-2,3-diolate],

- [2,3-dimethyl-1,4-bis-(2,6-di-iso-propylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [3,6-di-tert-butylcatecholate],
- [2,3-dimethyl-1,4-bis-(2,6-di-iso-propylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [3,6-di-tert-butyl-4-chlorocatecholate],
- [2,3-dimethyl-1,4-bis-(2,6-di-iso-propylphenyl)-l,4-diaza-l,3-butadiene] nickel(II) [3,6-di-tert-butvl-4,5-dichlorocatecholate],
- [2,3-dimethyl-1,4-bis-(2,6-di-iso-propylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [3,6-di-tert-butyl-4-fluorocatecholate],
- [2,3-dimethyl-1,4-bis-(2,6-di-*iso*-propylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [3,6-di-*tert*-butyl-4,5-difluorocatecholate],
- [2,3-dimethyl-1,4-bis-(2,6-di-iso-propylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [3,6-di-tert-butyl-4-methoxycatecholate],
- [2,3-dimethyl-1,4-bis-(2,6-di-iso-propylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [3,6-di-tert-butvl-4,5-dimethoxycatecholate],
- [2,3-dimethyl-1,4-bis-(2,6-di-iso-propylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [3,6-di-tert-butyl-4-iso-propylcatecholate],
- [2,3-dimethyl-1,4-bis-(2,6-di-iso-propylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [3,6-di-tert-butyl-4-cyclohexylcatecholate],
- [2,3-dimethyl-1,4-bis-(2,6-di-iso-propylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [3,5-di-tert-butylcatecholate],
- [2,3-dimethyl-1,4-bis-(2,6-di-iso-propylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [3,5-di-tert-butyl-6-chlorocatecholate],
- [2,3-dimethyl-1,4-bis-(2,6-di-iso-propylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [3,5-di-tert-butyl-6-nitrocatecholate],
- [2,3-dimethyl-1,4-bis-(2,6-di-iso-propylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [3,4,6-tri-iso-propylcatecholate],
- [2,3-dimethyl-1,4-bis-(2,6-di-iso-propylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [3,6-di-iso-propylcatecholate],
- [2,3-dimethyl-1,4-bis-(2,6-di-iso-propylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [1,4,6,8-tetra-tert-butyldibenzo[1,4]dioxine-2,3-diolate],

- [2,3-dimethyl-1,4-bis-(2,6-di-iso-propylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [1,4,6,7,8,9-hexachlorodibenzo[1,4]dioxine-2,3-diolate],
- [2,3-dimethyl-1,4-bis-(2,6-di-iso-propylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [1,4,6,7,8,9-hexabromodibenzo[1,4]dioxine-2,3-diolate],
- [2-methyl-1,4-bis-(2,6-di-*iso*-propylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [3,6-di-*tert*-butylcatecholate],
- [2-methyl-1,4-bis-(2,6-di-*iso*-propylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [3,6-di-*tert*-butyl-4-chlorocatecholate],
- [2-methyl-1,4-bis-(2,6-di-*iso*-propylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [3,6-di-*tert*-butvl-4,5-dichlorocatecholate],
- [2-methyl-1,4-bis-(2,6-di-*iso*-propylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [3,6-di-*tert*-butyl-4-fluorocatecholate],
- [2-methyl-1,4-bis-(2,6-di-iso-propylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [3,6-di-tert-butyl-4,5-difluorocatecholate],
- [2-methyl-1,4-bis-(2,6-di-*iso*-propylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [3,6-di-*tert*-butyl-4-methoxycatecholate],
- [2-methyl-1,4-bis-(2,6-di-*iso*-propylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [3,6-di-*tert*-butvl-4,5-dimethoxycatecholate],
- [2-methyl-1,4-bis-(2,6-di-*iso*-propylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [3,6-di-*tert*-butyl-4-*iso*-propylcatecholate],
- [2-methyl-1,4-bis-(2,6-di-iso-propylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [3,6-di-tert-butyl-4-cyclohexylcatecholate],
- [2-methyl-1,4-bis-(2,6-di-iso-propylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [3,5-di-tert-butylcatecholate],
- [2-methyl-1,4-bis-(2,6-di-iso-propylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [3,5-di-tert-butyl-6-chlorocatecholate],
- [2-methyl-1,4-bis-(2,6-di-*iso*-propylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [3,5-di-*tert*-butyl-6-nitrocatecholate],
- [2-methyl-1,4-bis-(2,6-di-iso-propylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [3,4,6-tri-iso-propylcatecholate],

[2-methyl-1,4-bis-(2,6-di-iso-propylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [3,6-di-iso-propylcatecholate],

[2-methyl-1,4-bis-(2,6-di-*iso*-propylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [1,4,6,8-tetra-tert-butyldibenzo[1,4]dioxine-2,3-diolate],

[2-methyl-1,4-bis-(2,6-di-*iso*-propylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [1,4,6,7,8,9-hexachlorodibenzo[1,4]dioxine-2,3-diolate],

[2-methyl-1,4-bis-(2,6-di-*iso*-propylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [1,4,6,7,8,9-hexabromodibenzo[1,4]dioxine-2,3-diolate],

[2-methyl-3-propyl-1,4-bis-(2,6-di-iso-propylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [3,6-di-tert-butylcatecholate],

[2-methyl-3-propyl-1,4-bis-(2,6-di-iso-propylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [3,6-di-tert-butyl-4-chlorocatecholate],

[2-methyl-3-propyl-1,4-bis-(2,6-di-*iso*-propylphenyl)-l,4-diaza-l,3-butadiene] nickel(II) [3,6-di-*tert*-butvl-4,5-dichlorocatecholate],

[2-methyl-3-propyl-1,4-bis-(2,6-di-iso-propylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [3,6-di-tert-butyl-4-fluorocatecholate],

[2-methyl-3-propyl-1,4-bis-(2,6-di-iso-propylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [3,6-di-tert-butyl-4,5-difluorocatecholate],

[2-methyl-3-propyl-1,4-bis-(2,6-di-iso-propylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [3,6-di-tert-butyl-4-methoxycatecholate],

[2-methyl-3-propyl-1,4-bis-(2,6-di-*iso*-propylphenyl)-l,4-diaza-l,3-butadiene] nickel(II) [3,6-di-*tert*-butvl-4,5-dimethoxycatecholate],

[2-methyl-3-propyl-1,4-bis-(2,6-di-iso-propylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [3,6-di-tert-butyl-4-iso-propylcatecholate],

[2-methyl-3-propyl-1,4-bis-(2,6-di-*iso*-propylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [3,6-di-*tert*-butyl-4-cyclohexylcatecholate],

[2-methyl-3-propyl-1,4-bis-(2,6-di-iso-propylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [3,5-di-tert-butylcatecholate],

[2-methyl-3-propyl-1,4-bis-(2,6-di-iso-propylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [3,5-di-tert-butyl-6-chlorocatecholate],

- [2-methyl-3-propyl-1,4-bis-(2,6-di-*iso*-propylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [3,5-di-*tert*-butyl-6-nitrocatecholate],
- [2-methyl-3-propyl-1,4-bis-(2,6-di-*iso*-propylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [3,4,6-tri-*iso*-propylcatecholate],
- [2-methyl-3-propyl-1,4-bis-(2,6-di-*iso*-propylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [3,6-di-*iso*-propylcatecholate],
- [2-methyl-3-propyl-1,4-bis-(2,6-di-*iso*-propylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [1,4,6,8-tetra-*tert*-butyldibenzo[1,4]dioxine-2,3-diolate],
- [2-methyl-3-propyl-1,4-bis-(2,6-di-iso-propylphenyl)-1,4-diaza-1,3-butadiene] nickel(II)
- [1,4,6,7,8,9-hexachlorodibenzo[1,4]dioxine-2,3-diolate],
- [2-methyl-3-propyl-1,4-bis-(2,6-di-iso-propylphenyl)-1,4-diaza-1,3-butadiene] nickel(II)
- [1,4,6,7,8,9-hexabromodibenzo[1,4]dioxine-2,3-diolate],
- [1,2-bis-(2,6-di-iso-propylphenylimino)acenaphthene] nickel(II) [3,6-di-tert-butylcatecholate],
- [1,2-bis-(2,6-di-iso-propylphenylimino)acenaphthene] nickel(II) [3,6-di-tert-butyl-4-chlorocatecholate],
- [1,2-bis-(2,6-di-*iso*-propylphenylimino)acenaphthene] nickel(II) [3,6-di-*tert*-butvl-4,5-dichlorocatecholate],
- [1,2-bis-(2,6-di-iso-propylphenylimino)acenaphthene] nickel(II) [3,6-di-tert-butyl-4-fluorocatecholate],
- [1,2-bis-(2,6-di-iso-propylphenylimino)acenaphthene] nickel(II) [3,6-di-tert-butyl-4,5-difluorocatecholate],
- [1,2-bis-(2,6-di-iso-propylphenylimino)acenaphthene] nickel(II) [3,6-di-tert-butyl-4-methoxycatecholate],
- [1,2-bis-(2,6-di-*iso*-propylphenylimino)acenaphthene] nickel(II) [3,6-di-*tert*-butvl-4,5-dimethoxycatecholate],
- [1,2-bis-(2,6-di-iso-propylphenylimino)acenaphthene] nickel(II) [3,6-di-tert-butyl-4-iso-propylcatecholate],
- [1,2-bis-(2,6-di-*iso*-propylphenylimino)acenaphthene] nickel(II) [3,6-di-*tert*-butyl-4-cyclohexylcatecholate],
- [1,2-bis-(2,6-di-iso-propylphenylimino)acenaphthene] nickel(II) [3,5-di-tert-butylcatecholate],

- [1,2-bis-(2,6-di-iso-propylphenylimino)acenaphthene] nickel(II) [3,5-di-tert-butyl-6-chlorocatecholate],
- [1,2-bis-(2,6-di-iso-propylphenylimino)acenaphthene] nickel(II) [3,5-di-tert-butyl-6-nitrocatecholate],
- [1,2-bis-(2,6-di-iso-propylphenylimino)acenaphthene] nickel(II) [3,4,6-tri-iso-propylcatecholate],
- [1,2-bis-(2,6-di-iso-propylphenylimino)acenaphthene] nickel(II) [3,6-di-iso-propylcatecholate],
- [1,2-bis-(2,6-di-iso-propylphenylimino)acenaphthene] nickel(II) [1,4,6,8-tetra-tert-butyldibenzo[1,4]dioxine-2,3-diolate],
- [1,2-bis-(2,6-di-iso-propylphenylimino)acenaphthene] nickel(II) [1,4,6,7,8,9-hexachlorodibenzo[1,4]dioxine-2,3-diolate],
- [1,2-bis-(2,6-di-*iso*-propylphenylimino)acenaphthene] nickel(II) [1,4,6,7,8,9-hexabromodibenzo[1,4]dioxine-2,3-diolate],
- [1,4-bis-(2,6-dimethylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [3,6-di-tert-butylcatecholate],
- [1,4-bis-(2,6-dimethylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [3,6-di-tert-butyl-4-chlorocatecholate],
- [1,4-bis-(2,6-dimethylphenyl)-l,4-diaza-l,3-butadiene] nickel(II) [3,6-di-*tert*-butvl-4,5-dichlorocatecholate],
- [1,4-bis-(2,6-dimethylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [3,6-di-tert-butyl-4-fluorocatecholate],
- [1,4-bis-(2,6-dimethylphenyl)-l,4-diaza-l,3-butadiene] nickel(II) [3,6-di-*tert*-butyl-4,5-difluorocatecholate],
- [1,4-bis-(2,6-dimethylphenyl)-l,4-diaza-l,3-butadiene] nickel(II) [3,6-di-tert-butyl-4-methoxycatecholate],
- [1,4-bis-(2,6-dimethylphenyl)-l,4-diaza-l,3-butadiene] nickel(II) [3,6-di-*tert*-butvl-4,5-dimethoxycatecholate],
- [1,4-bis-(2,6-dimethylphenyl)-l,4-diaza-l,3-butadiene] nickel(II) [3,6-di-*tert*-butyl-4-*iso*-propylcatecholate],
- [1,4-bis-(2,6-dimethylphenyl)-l,4-diaza-l,3-butadiene] nickel(II) [3,6-di-*tert*-butyl-4-cyclohexylcatecholate],
- [1,4-bis-(2,6-dimethylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [3,5-di-tert-butylcatecholate],

- [1,4-bis-(2,6-dimethylphenyl)-l,4-diaza-l,3-butadiene] nickel(II) [3,5-di-tert-butyl-6-chlorocatecholate],
- [1,4-bis-(2,6-dimethylphenyl)-l,4-diaza-l,3-butadiene] nickel(II) [3,5-di-tert-butyl-6-nitrocatecholate],
- [1,4-bis-(2,6-dimethylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [3,4,6-tri-iso-propylcatecholate],
- [1,4-bis-(2,6-dimethylphenyl)-l,4-diaza-l,3-butadiene] nickel(II) [3,6-di-iso-propylcatecholate],
- [1,4-bis-(2,6-dimethylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [3,5-dimethylcatecholate],
- [1,4-bis-(2,6-dimethylphenyl)-l,4-diaza-l,3-butadiene] nickel(II) [1,4,6,8-tetra-tert-butyldibenzo[1,4]dioxine-2,3-diolate],
- [1,4-bis-(2,6-dimethylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [1,4,6,7,8,9-hexachlorodibenzo[1,4]dioxine-2,3-diolate],
- [1,4-bis-(2,6-dimethylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [1,4,6,7,8,9-hexabromodibenzo[1,4]dioxine-2,3-diolate],
- [2,3-dimethyl-1,4-bis-(2,6-dimethylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [3,6-di-tert-butylcatecholate],
- [2,3-dimethyl-1,4-bis-(2,6-dimethylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [3,6-di-tert-butyl-4-chlorocatecholate],
- [2,3-dimethyl-1,4-bis-(2,6-dimethylphenyl)-l,4-diaza-l,3-butadiene] nickel(II) [3,6-di-*tert*-butvl-4,5-dichlorocatecholate],
- [2,3-dimethyl-1,4-bis-(2,6-dimethylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [3,6-di-tert-butyl-4-fluorocatecholate],
- [2,3-dimethyl-1,4-bis-(2,6-dimethylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [3,6-di-tert-butyl-4,5-difluorocatecholate],
- [2,3-dimethyl-1,4-bis-(2,6-dimethylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [3,6-di-tert-butyl-4-methoxycatecholate],
- [2,3-dimethyl-1,4-bis-(2,6-dimethylphenyl)-l,4-diaza-l,3-butadiene] nickel(II) [3,6-di-tert-butvl-4,5-dimethoxycatecholate],
- [2,3-dimethyl-1,4-bis-(2,6-dimethylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [3,6-di-tert-butyl-4-iso-propylcatecholate],

- [2,3-dimethyl-1,4-bis-(2,6-dimethylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [3,6-di-tert-butyl-4-cyclohexylcatecholate],
- [2,3-dimethyl-1,4-bis-(2,6-dimethylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [3,5-di-tert-butylcatecholate],
- [2,3-dimethyl-1,4-bis-(2,6-dimethylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [3,5-di-tert-butyl-6-chlorocatecholate],
- [2,3-dimethyl-1,4-bis-(2,6-dimethylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [3,5-di-tert-butyl-6-nitrocatecholate],
- [2,3-dimethyl-1,4-bis-(2,6-dimethylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [3,4,6-tri-iso-propylcatecholate],
- [2,3-dimethyl-1,4-bis-(2,6-dimethylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [3,6-di-iso-propylcatecholate],
- [2,3-dimethyl-1,4-bis-(2,6-dimethylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [1,4,6,8-tetra-tert-butyldibenzo[1,4]dioxine-2,3-diolate],
- [2,3-dimethyl-1,4-bis-(2,6-dimethylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [1,4,6,7,8,9-hexachlorodibenzo[1,4]dioxine-2,3-diolate],
- [2,3-dimethyl-1,4-bis-(2,6-dimethylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [1,4,6,7,8,9-hexabromodibenzo[1,4]dioxine-2,3-diolate],
- [2-methyl-1,4-bis-(2,6-dimethylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [3,6-di-tert-butylcatecholate],
- [2-methyl-1,4-bis-(2,6-dimethylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [3,6-di-tert-butyl-4-chlorocatecholate],
- [2-methyl-1,4-bis-(2,6-dimethylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [3,6-di-tert-butvl-4,5-dichlorocatecholate],
- [2-methyl-1,4-bis-(2,6-dimethylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [3,6-di-tert-butyl-4-fluorocatecholate],
- [2-methyl-1,4-bis-(2,6-dimethylphenyl)-1,4-diaza-1,3-butadiene] nickel( $\Pi$ ) [3,6-di-*tert*-butyl-4,5-difluorocatecholate],
- [2-methyl-1,4-bis-(2,6-dimethylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [3,6-di-tert-butyl-4-methoxycatecholate],

[2-methyl-1,4-bis-(2,6-dimethylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [3,6-di-*tert*-butvl-4,5-dimethoxycatecholate],

[2-methyl-1,4-bis-(2,6-dimethylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [3,6-di-tert-butyl-4-iso-propylcatecholate],

[2-methyl-1,4-bis-(2,6-dimethylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [3,6-di-*tert*-butyl-4-cyclohexylcatecholate],

[2-methyl-1,4-bis-(2,6-dimethylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [3,5-di-tert-butylcatecholate],

[2-methyl-1,4-bis-(2,6-dimethylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [3,5-di-*tert*-butyl-6-chlorocatecholate],

[2-methyl-1,4-bis-(2,6-dimethylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [3,5-di-*tert*-butyl-6-nitrocatecholate],

[2-methyl-1,4-bis-(2,6-dimethylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [3,4,6-tri-iso-propylcatecholate],

[2-methyl-1,4-bis-(2,6-dimethylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [3,6-di-iso-propylcatecholate],

[2-methyl-1,4-bis-(2,6-dimethylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [1,4,6,8-tetra-*tert*-butyldibenzo[1,4]dioxine-2,3-diolate],

[2-methyl-1,4-bis-(2,6-dimethylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [1,4,6,7,8,9-hexachlorodibenzo[1,4]dioxine-2,3-diolate],

[2-methyl-1,4-bis-(2,6-dimethylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [1,4,6,7,8,9-hexabromodibenzo[1,4]dioxine-2,3-diolate],

[2-methyl-3-propyl-1,4-bis-(2,6-dimethylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [3,6-di-tert-butylcatecholate],

[2-methyl-3-propyl-1,4-bis-(2,6-dimethylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [3,6-di-tert-butyl-4-chlorocatecholate],

[2-methyl-3-propyl-1,4-bis-(2,6-dimethylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [3,6-di-tert-butvl-4,5-dichlorocatecholate],

[2-methyl-3-propyl-1,4-bis-(2,6-dimethylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [3,6-di-tert-butyl-4-fluorocatecholate],

[2-methyl-3-propyl-1,4-bis-(2,6-dimethylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [3,6-di-tert-butyl-4,5-difluorocatecholate],

[2-methyl-3-propyl-1,4-bis-(2,6-dimethylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [3,6-di-tert-butyl-4-methoxycatecholate],

[2-methyl-3-propyl-1,4-bis-(2,6-dimethylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [3,6-di-tert-butvl-4,5-dimethoxycatecholate],

[2-methyl-3-propyl-1,4-bis-(2,6-dimethylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [3,6-di-*tert*-butyl-4-*iso*-propylcatecholate],

[2-methyl-3-propyl-1,4-bis-(2,6-dimethylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [3,6-di-tert-butyl-4-cyclohexylcatecholate],

[2-methyl-3-propyl-1,4-bis-(2,6-dimethylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [3,5-di-tert-butylcatecholate],

[2-methyl-3-propyl-1,4-bis-(2,6-dimethylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [3,5-di-tert-butyl-6-chlorocatecholate],

[2-methyl-3-propyl-1,4-bis-(2,6-dimethylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [3,5-di-tert-butyl-6-nitrocatecholate],

[2-methyl-3-propyl-1,4-bis-(2,6-dimethylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [3,4,6-tri-iso-propylcatecholate],

[2-methyl-3-propyl-1,4-bis-(2,6-dimethylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [3,6-di-iso-propylcatecholate],

[2-methyl-3-propyl-1,4-bis-(2,6-dimethylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [1,4,6,8-tetra-*tert*-butyldibenzo[1,4]dioxine-2,3-diolate],

[2-methyl-3-propyl-1,4-bis-(2,6-dimethylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [1,4,6,7,8,9-hexachlorodibenzo[1,4]dioxine-2,3-diolate],

[2-methyl-3-propyl-1,4-bis-(2,6-dimethylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [1,4,6,7,8,9-hexabromodibenzo[1,4]dioxine-2,3-diolate],

[1,2-bis-(2,6-dimethylphenylimino)acenaphthene] nickel(II) [3,6-di-*tert*-butylcatecholate], [1,2-bis-(2,6-dimethylphenylimino)acenaphthene] nickel(II) [3,6-di-*tert*-butyl-4-chlorocatecholate],

- [1,2-bis-(2,6-dimethylphenylimino)acenaphthene] nickel(II) [3,6-di-*tert*-butvl-4,5-dichlorocatecholate],
- [1,2-bis-(2,6-dimethylphenylimino)acenaphthene] nickel(II) [3,6-di-tert-butyl-4-fluorocatecholate],
- [1,2-bis-(2,6-dimethylphenylimino)acenaphthene] nickel(II) [3,6-di-*tert*-butyl-4,5-difluorocatecholate],
- [1,2-bis-(2,6-dimethylphenylimino)acenaphthene] nickel(II) [3,6-di-*tert*-butyl-4-methoxycatecholate],
- [1,2-bis-(2,6-dimethylphenylimino)acenaphthene] nickel(II) [3,6-di-tert-butvl-4,5-dimethoxycatecholate],
- [1,2-bis-(2,6-dimethylphenylimino)acenaphthene] nickel(II) [3,6-di-tert-butyl-4-iso-propylcatecholate],
- [1,2-bis-(2,6-dimethylphenylimino)acenaphthene] nickel(II) [3,6-di-*tert*-butyl-4-cyclohexylcatecholate],
- [1,2-bis-(2,6-dimethylphenylimino)acenaphthene] nickel(II) [3,5-di-tert-butylcatecholate],
- [1,2-bis-(2,6-dimethylphenylimino)acenaphthene] nickel(II) [3,5-di-*tert*-butyl-6-chlorocatecholate],
- [1,2-bis-(2,6-dimethylphenylimino)acenaphthene] nickel(II) [3,5-di-*tert*-butyl-6-nitrocatecholate],
- [1,2-bis-(2,6-dimethylphenylimino)acenaphthene] nickel(II) [3,4,6-tri-iso-propylcatecholate],
- [1,2-bis-(2,6-dimethylphenylimino)acenaphthene] nickel(II) [3,6-di-iso-propylcatecholate],
- [1,2-bis-(2,6-dimethylphenylimino)acenaphthene] nickel(II) [1,4,6,8-tetra-*tert*-butyldibenzo[1,4]dioxine-2,3-diolate],
- [1,2-bis-(2,6-dimethylphenylimino)acenaphthene] nickel(II) [1,4,6,7,8,9-hexachlorodibenzo[1,4]dioxine-2,3-diolate],
- [1,2-bis-(2,6-dimethylphenylimino)acenaphthene] nickel(II) [1,4,6,7,8,9-hexabromodibenzo[1,4]dioxine-2,3-diolate],
- [1-(2,6-dimethylphenyl)-4-(2,6-di-iso-propylphenyl)-l,4-diaza-l,3-butadiene] nickel(II) [3,6-di-tert-butylcatecholate],

- [1-(2,6-dimethylphenyl)-4-(2,6-di-iso-propylphenyl)-l,4-diaza-l,3-butadiene] nickel(II) [3,6-di-tert-butyl-4-chlorocatecholate],
- [1-(2,6-dimethylphenyl)-4-(2,6-di-iso-propylphenyl)-l,4-diaza-l,3-butadiene] nickel(II) [3,6-di-tert-butvl-4,5-dichlorocatecholate],
- [1-(2,6-dimethylphenyl)-4-(2,6-di-iso-propylphenyl)-l,4-diaza-l,3-butadiene] nickel(II) [3,6-di-tert-butyl-4-fluorocatecholate],
- [1-(2,6-dimethylphenyl)-4-(2,6-di-*iso*-propylphenyl)-l,4-diaza-l,3-butadiene] nickel(II) [3,6-di-*tert*-butyl-4,5-difluorocatecholate],
- [1-(2,6-dimethylphenyl)-4-(2,6-di-iso-propylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [3,6-di-tert-butyl-4-methoxycatecholate],
- [1-(2,6-dimethylphenyl)-4-(2,6-di-iso-propylphenyl)-l,4-diaza-l,3-butadiene] nickel(II) [3,6-di-tert-butvl-4,5-dimethoxycatecholate],
- [1-(2,6-dimethylphenyl)-4-(2,6-di-*iso*-propylphenyl)-l,4-diaza-l,3-butadiene] nickel(II) [3,6-di-*tert*-butyl-4-*iso*-propylcatecholate],
- [1-(2,6-dimethylphenyl)-4-(2,6-di-*iso*-propylphenyl)-l,4-diaza-l,3-butadiene] nickel(II) [3,6-di-*tert*-butyl-4-cyclohexylcatecholate],
- [1-(2,6-dimethylphenyl)-4-(2,6-di-*iso*-propylphenyl)-l,4-diaza-l,3-butadiene] nickel(II) [3,5-di-*tert*-butylcatecholate],
- [1-(2,6-dimethylphenyl)-4-(2,6-di-*iso*-propylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [3,5-di-*tert*-butyl-6-chlorocatecholate],
- [1-(2,6-dimethylphenyl)-4-(2,6-di-*iso*-propylphenyl)-l,4-diaza-l,3-butadiene] nickel(II) [3,5-di-*tert*-butyl-6-nitrocatecholate],
- [1-(2,6-dimethylphenyl)-4-(2,6-di-*iso*-propylphenyl)-l,4-diaza-l,3-butadiene] nickel(II) [3,4,6-tri-*iso*-propylcatecholate],
- [1-(2,6-dimethylphenyl)-4-(2,6-di-*iso*-propylphenyl)-l,4-diaza-l,3-butadiene] nickel(II) [3,6-di-*iso*-propylcatecholate],
- [1-(2,6-dimethylphenyl)-4-(2,6-di-iso-propylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [3,5-dimethylcatecholate],
- [1-(2,6-dimethylphenyl)-4-(2,6-di-*iso*-propylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [1,4,6,8-tetra-*tert*-butyldibenzo[1,4]dioxine-2,3-diolate],

- [1-(2,6-dimethylphenyl)-4-(2,6-di-iso-propylphenyl)-l,4-diaza-l,3-butadiene] nickel(II)
- [1,4,6,7,8,9-hexachlorodibenzo[1,4]dioxine-2,3-diolate],
- [1-(2,6-dimethylphenyl)-4-(2,6-di-iso-propylphenyl)-1,4-diaza-1,3-butadiene] nickel(II)
- [1,4,6,7,8,9-hexabromodibenzo[1,4]dioxine-2,3-diolate],
- [2,3-dimethyl-1-(2,6-dimethylphenyl)-4-(2,6-di-*iso*-propylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [3,6-di-*tert*-butylcatecholate],
- [2,3-dimethyl-1-(2,6-dimethylphenyl)-4-(2,6-di-*iso*-propylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [3,6-di-*tert*-butyl-4-chlorocatecholate],
- [2,3-dimethyl-1-(2,6-dimethylphenyl)-4-(2,6-di-*iso*-propylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [3,6-di-*tert*-butvl-4,5-dichlorocatecholate],
- [2,3-dimethyl-1-(2,6-dimethylphenyl)-4-(2,6-di-iso-propylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [3,6-di-tert-butyl-4-fluorocatecholate],
- [2,3-dimethyl-1-(2,6-dimethylphenyl)-4-(2,6-di-*iso*-propylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [3,6-di-*tert*-butyl-4,5-difluorocatecholate],
- [2,3-dimethyl-1-(2,6-dimethylphenyl)-4-(2,6-di-iso-propylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [3,6-di-tert-butyl-4-methoxycatecholate],
- [2,3-dimethyl-1-(2,6-dimethylphenyl)-4-(2,6-di-*iso*-propylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [3,6-di-*tert*-butvl-4,5-dimethoxycatecholate],
- [2,3-dimethyl-1-(2,6-dimethylphenyl)-4-(2,6-di-*iso*-propylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [3,6-di-*tert*-butyl-4-*iso*-propylcatecholate],
- [2,3-dimethyl-1-(2,6-dimethylphenyl)-4-(2,6-di-*iso*-propylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [3,6-di-*tert*-butyl-4-cyclohexylcatecholate],
- [2,3-dimethyl-1-(2,6-dimethylphenyl)-4-(2,6-di-*iso*-propylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [3,5-di-*tert*-butylcatecholate],
- [2,3-dimethyl-1-(2,6-dimethylphenyl)-4-(2,6-di-*iso*-propylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [3,5-di-*tert*-butyl-6-chlorocatecholate],
- [2,3-dimethyl-1-(2,6-dimethylphenyl)-4-(2,6-di-iso-propylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [3,5-di-tert-butyl-6-nitrocatecholate],
- [2,3-dimethyl-1-(2,6-dimethylphenyl)-4-(2,6-di-iso-propylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [3,4,6-tri-iso-propylcatecholate],

- [2,3-dimethyl-1-(2,6-dimethylphenyl)-4-(2,6-di-*iso*-propylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [3,6-di-*iso*-propylcatecholate],
- [2,3-dimethyl-1-(2,6-dimethylphenyl)-4-(2,6-di-iso-propylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [1,4,6,8-tetra-tert-butyldibenzo[1,4]dioxine-2,3-diolate],
- [2,3-dimethyl-1-(2,6-dimethylphenyl)-4-(2,6-di-iso-propylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [1,4,6,7,8,9-hexachlorodibenzo[1,4]dioxine-2,3-diolate],
- [2,3-dimethyl-1-(2,6-dimethylphenyl)-4-(2,6-di-iso-propylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [1,4,6,7,8,9-hexabromodibenzo[1,4]dioxine-2,3-diolate],
- [2-methyl-1-(2,6-dimethylphenyl)-4-(2,6-di-*iso*-propylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [3,6-di-*tert*-butylcatecholate],
- [2-methyl-1-(2,6-dimethylphenyl)-4-(2,6-di-*iso*-propylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [3,6-di-*tert*-butyl-4-chlorocatecholate],
- [2-methyl-1-(2,6-dimethylphenyl)-4-(2,6-di-*iso*-propylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [3,6-di-*tert*-butvl-4,5-dichlorocatecholate],
- [2-methyl-1-(2,6-dimethylphenyl)-4-(2,6-di-*iso*-propylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [3,6-di-*tert*-butyl-4-fluorocatecholate],
- [2-methyl-1-(2,6-dimethylphenyl)-4-(2,6-di-*iso*-propylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [3,6-di-*tert*-butyl-4,5-difluorocatecholate],
- [2-methyl-1-(2,6-dimethylphenyl)-4-(2,6-di-*iso*-propylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [3,6-di-*tert*-butyl-4-methoxycatecholate],
- [2-methyl-1-(2,6-dimethylphenyl)-4-(2,6-di-*iso*-propylphenyl)-l,4-diaza-l,3-butadiene] nickel(II) [3,6-di-*tert*-butvl-4,5-dimethoxycatecholate],
- [2-methyl-1-(2,6-dimethylphenyl)-4-(2,6-di-*iso*-propylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [3,6-di-*tert*-butyl-4-*iso*-propylcatecholate],
- [2-methyl-1-(2,6-dimethylphenyl)-4-(2,6-di-iso-propylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [3,6-di-tert-butyl-4-cyclohexylcatecholate],
- [2-methyl-1-(2,6-dimethylphenyl)-4-(2,6-di-iso-propylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [3,5-di-tert-butylcatecholate],
- [2-methyl-1-(2,6-dimethylphenyl)-4-(2,6-di-iso-propylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [3,5-di-tert-butyl-6-chlorocatecholate],

- [2-methyl-1-(2,6-dimethylphenyl)-4-(2,6-di-*iso*-propylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [3,5-di-*tert*-butyl-6-nitrocatecholate],
- [2-methyl-1-(2,6-dimethylphenyl)-4-(2,6-di-iso-propylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [3,4,6-tri-iso-propylcatecholate],
- [2-methyl-1-(2,6-dimethylphenyl)-4-(2,6-di-iso-propylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [3,6-di-iso-propylcatecholate],
- [2-methyl-1-(2,6-dimethylphenyl)-4-(2,6-di-*iso*-propylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [1,4,6,8-tetra-*tert*-butyldibenzo[1,4]dioxine-2,3-diolate],
- [2-methyl-1-(2,6-dimethylphenyl)-4-(2,6-di-iso-propylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [1,4,6,7,8,9-hexachlorodibenzo[1,4]dioxine-2,3-diolate],
- [2-methyl-1-(2,6-dimethylphenyl)-4-(2,6-di-*iso*-propylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [1,4,6,7,8,9-hexabromodibenzo[1,4]dioxine-2,3-diolate],
- [2-methyl-3-propyl-1-(2,6-dimethylphenyl)-4-(2,6-di-*iso*-propylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [3,6-di-*tert*-butylcatecholate],
- [2-methyl-3-propyl-1-(2,6-dimethylphenyl)-4-(2,6-di-*iso*-propylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [3,6-di-*tert*-butyl-4-chlorocatecholate],
- [2-methyl-3-propyl-1-(2,6-dimethylphenyl)-4-(2,6-di-*iso*-propylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [3,6-di-*tert*-butvl-4,5-dichlorocatecholate],
- [2-methyl-3-propyl-1-(2,6-dimethylphenyl)-4-(2,6-di-*iso*-propylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [3,6-di-*tert*-butyl-4-fluorocatecholate],
- [2-methyl-3-propyl-1-(2,6-dimethylphenyl)-4-(2,6-di-*iso*-propylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [3,6-di-*tert*-butyl-4,5-difluorocatecholate],
- [2-methyl-3-propyl-1-(2,6-dimethylphenyl)-4-(2,6-di-*iso*-propylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [3,6-di-*tert*-butyl-4-methoxycatecholate],
- [2-methyl-3-propyl-1-(2,6-dimethylphenyl)-4-(2,6-di-iso-propylphenyl)-l,4-diaza-l,3-butadiene] nickel(II) [3,6-di-tert-butvl-4,5-dimethoxycatecholate],
- [2-methyl-3-propyl-1-(2,6-dimethylphenyl)-4-(2,6-di-*iso*-propylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [3,6-di-*tert*-butyl-4-*iso*-propylcatecholate],
- [2-methyl-3-propyl-1-(2,6-dimethylphenyl)-4-(2,6-di-*iso*-propylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [3,6-di-*tert*-butyl-4-cyclohexylcatecholate],

- [2-methyl-3-propyl-1-(2,6-dimethylphenyl)-4-(2,6-di-*iso*-propylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [3,5-di-*tert*-butylcatecholate],
- [2-methyl-3-propyl-1-(2,6-dimethylphenyl)-4-(2,6-di-*iso*-propylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [3,5-di-*tert*-butyl-6-chlorocatecholate],
- [2-methyl-3-propyl-1-(2,6-dimethylphenyl)-4-(2,6-di-*iso*-propylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [3,5-di-*tert*-butyl-6-nitrocatecholate],
- [2-methyl-3-propyl-1-(2,6-dimethylphenyl)-4-(2,6-di-iso-propylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [3,4,6-tri-iso-propylcatecholate],
- [2-methyl-3-propyl-1-(2,6-dimethylphenyl)-4-(2,6-di-*iso*-propylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [3,6-di-*iso*-propylcatecholate],
- [2-methyl-3-propyl-1-(2,6-dimethylphenyl)-4-(2,6-di-*iso*-propylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [1,4,6,8-tetra-*tert*-butyldibenzo[1,4]dioxine-2,3-diolate],
- [2-methyl-3-propyl-1-(2,6-dimethylphenyl)-4-(2,6-di-*iso*-propylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [1,4,6,7,8,9-hexachlorodibenzo[1,4]dioxine-2,3-diolate],
- [2-methyl-3-propyl-1-(2,6-dimethylphenyl)-4-(2,6-di-*iso*-propylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [1,4,6,7,8,9-hexabromodibenzo[1,4]dioxine-2,3-diolate],
- [1-(2,6-dimethylphenylimino)-2-(2,6-di-iso-propylphenylimino)acenaphthene] nickel(II) [3,6-di-tert-butylcatecholate],
- [1-(2,6-dimethylphenylimino)-2-(2,6-di-*iso*-propylphenylimino)acenaphthene] nickel(II) [3,6-di-*tert*-butyl-4-chlorocatecholate],
- [1-(2,6-dimethylphenylimino)-2-(2,6-di-*iso*-propylphenylimino)acenaphthene] nickel(II) [3,6-di-*tert*-butvl-4,5-dichlorocatecholate],
- [1-(2,6-dimethylphenylimino)-2-(2,6-di-*iso*-propylphenylimino)acenaphthene] nickel(II) [3,6-di-*tert*-butyl-4-fluorocatecholate],
- [1-(2,6-dimethylphenylimino)-2-(2,6-di-*iso*-propylphenylimino)acenaphthene] nickel(II) [3,6-di-*tert*-butyl-4,5-difluorocatecholate],
- [1-(2,6-dimethylphenylimino)-2-(2,6-di-iso-propylphenylimino)acenaphthene] nickel(II) [3,6-di-tert-butyl-4-methoxycatecholate],
- [1-(2,6-dimethylphenylimino)-2-(2,6-di-*iso*-propylphenylimino)acenaphthene] nickel(II) [3,6-di-*tert*-butvl-4,5-dimethoxycatecholate],

- [1-(2,6-dimethylphenylimino)-2-(2,6-di-iso-propylphenylimino)acenaphthene] nickel(II) [3,6-di-tert-butyl-4-iso-propylcatecholate],
- [1-(2,6-dimethylphenylimino)-2-(2,6-di-iso-propylphenylimino)acenaphthene] nickel(II) [3,6-di-tert-butyl-4-cyclohexylcatecholate],
- [1-(2,6-dimethylphenylimino)-2-(2,6-di-iso-propylphenylimino)acenaphthene] nickel(II) [3,5-di-tert-butylcatecholate],
- [1-(2,6-dimethylphenylimino)-2-(2,6-di-iso-propylphenylimino)acenaphthene] nickel(II) [3,5-di-tert-butyl-6-chlorocatecholate],
- [1-(2,6-dimethylphenylimino)-2-(2,6-di-iso-propylphenylimino)acenaphthene] nickel(II) [3,5-di-tert-butyl-6-nitrocatecholate],
- [1-(2,6-dimethylphenylimino)-2-(2,6-di-iso-propylphenylimino)acenaphthene] nickel(II) [3,4,6-tri-iso-propylcatecholate],
- [1-(2,6-dimethylphenylimino)-2-(2,6-di-iso-propylphenylimino)acenaphthene] nickel(II) [3,6-di-iso-propylcatecholate],
- [1-(2,6-dimethylphenylimino)-2-(2,6-di-iso-propylphenylimino)acenaphthene] nickel(II) [1,4,6,8-tetra-tert-butyldibenzo[1,4]dioxine-2,3-diolate],
- [1-(2,6-dimethylphenylimino)-2-(2,6-di-iso-propylphenylimino)acenaphthene] nickel(II)
- [1,4,6,7,8,9-hexachlorodibenzo[1,4]dioxine-2,3-diolate],
- [1-(2,6-dimethylphenylimino)-2-(2,6-di-iso-propylphenylimino)acenaphthene] nickel(II)
- [1,4,6,7,8,9-hexabromodibenzo[1,4]dioxine-2,3-diolate],
- [1-(2,5-di-*tert*-butylphenyl)-4-(2,6-di-*iso*-propylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [3,6-di-*tert*-butylcatecholate],
- [1-(2,5-di-*tert*-butylphenyl)-4-(2,6-di-*iso*-propylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [3,6-di-*tert*-butyl-4-chlorocatecholate],
- [1-(2,5-di-*tert*-butylphenyl)-4-(2,6-di-*iso*-propylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [3,6-di-*tert*-butyl-4,5-dichlorocatecholate],
- [1-(2,5-di-*tert*-butylphenyl)-4-(2,6-di-*iso*-propylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [3,6-di-*tert*-butyl-4-fluorocatecholate],
- [1-(2,5-di-*tert*-butylphenyl)-4-(2,6-di-*iso*-propylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [3,6-di-*tert*-butyl-4,5-difluorocatecholate],

- [1-(2,5-di-*tert*-butylphenyl)-4-(2,6-di-*iso*-propylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [3,6-di-*tert*-butyl-4-methoxycatecholate],
- [1-(2,5-di-*tert*-butylphenyl)-4-(2,6-di-*iso*-propylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [3,6-di-*tert*-butyl-4,5-dimethoxycatecholate],
- [1-(2,5-di-*tert*-butylphenyl)-4-(2,6-di-*iso*-propylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [3,6-di-*tert*-butyl-4-*iso*-propylcatecholate],
- [1-(2,5-di-*tert*-butylphenyl)-4-(2,6-di-*iso*-propylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [3,6-di-*tert*-butyl-4-cyclohexylcatecholate],
- [1-(2,5-di-*tert*-butylphenyl)-4-(2,6-di-*iso*-propylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [3,5-di-*tert*-butylcatecholate],
- [1-(2,5-di-*tert*-butylphenyl)-4-(2,6-di-*iso*-propylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [3,5-di-*tert*-butyl-6-chlorocatecholate],
- [1-(2,5-di-*tert*-butylphenyl)-4-(2,6-di-*iso*-propylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [3,5-di-*tert*-butyl-6-nitrocatecholate],
- [1-(2,5-di-*tert*-butylphenyl)-4-(2,6-di-*iso*-propylphenyl)-l,4-diaza-l,3-butadiene] nickel(II) [3,4,6-tri-*iso*-propylcatecholate],
- [1-(2,5-di-*tert*-butylphenyl)-4-(2,6-di-*iso*-propylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [3,6-di-*iso*-propylcatecholate],
- [1-(2,5-di-*tert*-butylphenyl)-4-(2,6-di-*iso*-propylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [3,5-dimethylcatecholate],
- [1-(2,5-di-tert-butylphenyl)-4-(2,6-di-iso-propylphenyl)-1,4-diaza-1,3-butadiene] nickel(II)
- [1,4,6,8-tetra-tert-butyldibenzo[1,4]dioxine-2,3-diolate],
- $[1-(2,5-\mathrm{di-}\textit{tert}-\mathrm{butylphenyl})-4-(2,6-\mathrm{di-}\textit{iso}-\mathrm{propylphenyl})-1,4-\mathrm{diaza-l},3-\mathrm{butadiene}]\ \mathrm{nickel}(\Pi)$
- [1,4,6,7,8,9-hexachlorodibenzo[1,4]dioxine-2,3-diolate],
- $[1-(2,5-\mathrm{di-}\textit{tert}-\mathrm{butylphenyl})-4-(2,6-\mathrm{di-}\textit{iso}-\mathrm{propylphenyl})-1,4-\mathrm{diaza-1,3-butadiene}]\ nickel(II)$
- [1,4,6,7,8,9-hexabromodibenzo[1,4]dioxine-2,3-diolate],
- [2,3-dimethyl-1-(2,5-di-*tert*-butylphenyl)-4-(2,6-di-*iso*-propylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [3,6-di-*tert*-butylcatecholate],
- [2,3-dimethyl-1-(2,5-di-*tert*-butylphenyl)-4-(2,6-di-*iso*-propylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [3,6-di-*tert*-butyl-4-chlorocatecholate],

- [2,3-dimethyl-1-(2,5-di-*tert*-butylphenyl)-4-(2,6-di-*iso*-propylphenyl)-l,4-diaza-l,3-butadiene] nickel(II) [3,6-di-*tert*-butyl-4,5-dichlorocatecholate],
- [2,3-dimethyl-1-(2,5-di-*tert*-butylphenyl)-4-(2,6-di-*iso*-propylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [3,6-di-*tert*-butyl-4-bromocatecholate],
- [2,3-dimethyl-1-(2,5-di-*tert*-butylphenyl)-4-(2,6-di-*iso*-propylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [3,6-di-*tert*-butyl-4,5-dibromocatecholate],
- [2,3-dimethyl-1-(2,5-di-*tert*-butylphenyl)-4-(2,6-di-*iso*-propylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [3,6-di-*tert*-butyl-4-fluorocatecholate],
- [2,3-dimethyl-1-(2,5-di-*tert*-butylphenyl)-4-(2,6-di-*iso*-propylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [3,6-di-*tert*-butyl-4,5-difluorocatecholate],
- [2,3-dimethyl-1-(2,5-di-*tert*-butylphenyl)-4-(2,6-di-*iso*-propylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [3,6-di-*tert*-butyl-4-methoxycatecholate],
- [2,3-dimethyl-1-(2,5-di-*tert*-butylphenyl)-4-(2,6-di-*iso*-propylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [3,6-di-*tert*-butyl-4,5-dimethoxycatecholate],
- [2,3-dimethyl-1-(2,5-di-*tert*-butylphenyl)-4-(2,6-di-*iso*-propylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [3,6-di-*tert*-butyl-4-*iso*-propylcatecholate],
- [2,3-dimethyl-1-(2,5-di-*tert*-butylphenyl)-4-(2,6-di-*iso*-propylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [3,6-di-*tert*-butyl-4-cyclohexylcatecholate],
- [2,3-dimethyl-1-(2,5-di-*tert*-butylphenyl)-4-(2,6-di-*iso*-propylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [3,5-di-*tert*-butylcatecholate],
- [2,3-dimethyl-1-(2,5-di-*tert*-butylphenyl)-4-(2,6-di-*iso*-propylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [3,5-di-*tert*-butyl-6-chlorocatecholate],
- [2,3-dimethyl-1-(2,5-di-*tert*-butylphenyl)-4-(2,6-di-*iso*-propylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [3,5-di-*tert*-butyl-6-nitrocatecholate],
- [2,3-dimethyl-1-(2,5-di-*tert*-butylphenyl)-4-(2,6-di-*iso*-propylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [3,4,6-tri-*iso*-propylcatecholate],
- [2,3-dimethyl-1-(2,5-di-*tert*-butylphenyl)-4-(2,6-di-*iso*-propylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [3,6-di-*iso*-propylcatecholate],
- [2,3-dimethyl-1-(2,5-di-*tert*-butylphenyl)-4-(2,6-di-*iso*-propylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [1,4,6,8-tetra-*tert*-butyldibenzo[1,4]dioxine-2,3-diolate],

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[2,3-dimethyl-1-(2,5-di-tert-butylphenyl)-4-(2,6-di-iso-propylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [1,4,6,7,8,9-hexachlorodibenzo[1,4]dioxine-2,3-diolate],
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[2,3-dimethyl-1-(2,5-di-tert-butylphenyl)-4-(2,6-di-iso-propylphenyl)-1,4-diaza-1,3-butadiene] nickel( $\Pi$ ) [1,4,6,7,8,9-hexabromodibenzo[1,4]dioxine-2,3-diolate],

[2-methyl-1-(2,5-di-*tert*-butylphenyl)-4-(2,6-di-*iso*-propylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [3,6-di-*tert*-butylcatecholate],

[2-methyl-1-(2,5-di-*tert*-butylphenyl)-4-(2,6-di-*iso*-propylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [3,6-di-*tert*-butyl-4-chlorocatecholate],

[2-methyl-1-(2,5-di-*tert*-butylphenyl)-4-(2,6-di-*iso*-propylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [3,6-di-*tert*-butyl-4,5-dichlorocatecholate],

[2-methyl-1-(2,5-di-*tert*-butylphenyl)-4-(2,6-di-*iso*-propylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [3,6-di-*tert*-butyl-4-fluorocatecholate],

[2-methyl-1-(2,5-di-*tert*-butylphenyl)-4-(2,6-di-*iso*-propylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [3,6-di-*tert*-butyl-4,5-difluorocatecholate],

[2-methyl-1-(2,5-di-*tert*-butylphenyl)-4-(2,6-di-*iso*-propylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [3,6-di-*tert*-butyl-4-methoxycatecholate],

[2-methyl-1-(2,5-di-*tert*-butylphenyl)-4-(2,6-di-*iso*-propylphenyl)-l,4-diaza-l,3-butadiene] nickel(II) [3,6-di-*tert*-butyl-4,5-dimethoxycatecholate],

[2-methyl-1-(2,5-di-*tert*-butylphenyl)-4-(2,6-di-*iso*-propylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [3,6-di-*tert*-butyl-4-*iso*-propylcatecholate],

[2-methyl-1-(2,5-di-*tert*-butylphenyl)-4-(2,6-di-*iso*-propylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [3,6-di-*tert*-butyl-4-cyclohexylcatecholate],

[2-methyl-1-(2,5-di-*tert*-butylphenyl)-4-(2,6-di-*iso*-propylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [3,5-di-*tert*-butylcatecholate],

[2-methyl-1-(2,5-di-*tert*-butylphenyl)-4-(2,6-di-*iso*-propylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [3,5-di-*tert*-butyl-6-chlorocatecholate],

[2-methyl-1-(2,5-di-*tert*-butylphenyl)-4-(2,6-di-*iso*-propylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [3,5-di-*tert*-butyl-6-nitrocatecholate],

[2-methyl-1-(2,5-di-*tert*-butylphenyl)-4-(2,6-di-*iso*-propylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [3,4,6-tri-*iso*-propylcatecholate],

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[2-methyl-1-(2,5-di-tert-butylphenyl)-4-(2,6-di-iso-propylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [3,6-di-iso-propylcatecholate],
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[2-methyl-1-(2,5-di-*tert*-butylphenyl)-4-(2,6-di-*iso*-propylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [1,4,6,8-tetra-*tert*-butyldibenzo[1,4]dioxine-2,3-diolate],

[2-methyl-1-(2,5-di-*tert*-butylphenyl)-4-(2,6-di-*iso*-propylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [1,4,6,7,8,9-hexachlorodibenzo[1,4]dioxine-2,3-diolate],

[2-methyl-1-(2,5-di-*tert*-butylphenyl)-4-(2,6-di-*iso*-propylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [1,4,6,7,8,9-hexabromodibenzo[1,4]dioxine-2,3-diolate],

[2-methyl-3-propyl-1-(2,5-di-tert-butylphenyl)-4-(2,6-di-iso-propylphenyl)-1,4-diaza-1,3-butadiene] nickel( $\Pi$ ) [3,6-di-tert-butylcatecholate],

[2-methyl-3-propyl-1-(2,5-di-*tert*-butylphenyl)-4-(2,6-di-*iso*-propylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [3,6-di-*tert*-butyl-4-chlorocatecholate],

[2-methyl-3-propyl-1-(2,5-di-*tert*-butylphenyl)-4-(2,6-di-*iso*-propylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [3,6-di-*tert*-butyl-4,5-dichlorocatecholate],

[2-methyl-3-propyl-1-(2,5-di-*tert*-butylphenyl)-4-(2,6-di-*iso*-propylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [3,6-di-*tert*-butyl-4-fluorocatecholate],

[2-methyl-3-propyl-1-(2,5-di-*tert*-butylphenyl)-4-(2,6-di-*iso*-propylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [3,6-di-*tert*-butyl-4,5-difluorocatecholate],

[2-methyl-3-propyl-1-(2,5-di-*tert*-butylphenyl)-4-(2,6-di-*iso*-propylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [3,6-di-*tert*-butyl-4-methoxycatecholate],

[2-methyl-3-propyl-1-(2,5-di-*tert*-butylphenyl)-4-(2,6-di-*iso*-propylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [3,6-di-*tert*-butyl-4,5-dimethoxycatecholate],

[2-methyl-3-propyl-1-(2,5-di-*tert*-butylphenyl)-4-(2,6-di-*iso*-propylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [3,6-di-*tert*-butyl-4-*iso*-propylcatecholate],

[2-methyl-3-propyl-1-(2,5-di-*tert*-butylphenyl)-4-(2,6-di-*iso*-propylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [3,6-di-*tert*-butyl-4-cyclohexylcatecholate],

[2-methyl-3-propyl-1-(2,5-di-*tert*-butylphenyl)-4-(2,6-di-*iso*-propylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [3,5-di-*tert*-butylcatecholate],

[2-methyl-3-propyl-1-(2,5-di-*tert*-butylphenyl)-4-(2,6-di-*iso*-propylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [3,5-di-*tert*-butyl-6-chlorocatecholate],

- [2-methyl-3-propyl-1-(2,5-di-*tert*-butylphenyl)-4-(2,6-di-*iso*-propylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [3,5-di-*tert*-butyl-6-nitrocatecholate],
- [2-methyl-3-propyl-1-(2,5-di-*tert*-butylphenyl)-4-(2,6-di-*iso*-propylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [3,4,6-tri-*iso*-propylcatecholate],
- [2-methyl-3-propyl-1-(2,5-di-*tert*-butylphenyl)-4-(2,6-di-*iso*-propylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [3,6-di-*iso*-propylcatecholate],
- [2-methyl-3-propyl-1-(2,5-di-*tert*-butylphenyl)-4-(2,6-di-*iso*-propylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [1,4,6,8-tetra-*tert*-butyldibenzo[1,4]dioxine-2,3-diolate],
- [2-methyl-3-propyl-1-(2,5-di-*tert*-butylphenyl)-4-(2,6-di-*iso*-propylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [1,4,6,7,8,9-hexachlorodibenzo[1,4]dioxine-2,3-diolate],
- [2-methyl-3-propyl-1-(2,5-di-*tert*-butylphenyl)-4-(2,6-di-*iso*-propylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [1,4,6,7,8,9-hexabromodibenzo[1,4]dioxine-2,3-diolate],
- [1-(2,5-di-*tert*-butylphenylimino)-2-(2,6-di-*iso*-propylphenylimino)acenaphthene] nickel(II) [3,6-di-*tert*-butylcatecholate],
- [1-(2,5-di-*tert*-butylphenylimino)-2-(2,6-di-*iso*-propylphenylimino)acenaphthene] nickel(II) [3,6-di-*tert*-butyl-4-chlorocatecholate],
- [1-(2,5-di-*tert*-butylphenylimino)-2-(2,6-di-*iso*-propylphenylimino)acenaphthene] nickel(II) [3,6-di-*tert*-butyl-4,5-dichlorocatecholate],
- [1-(2,5-di-*tert*-butylphenylimino)-2-(2,6-di-*iso*-propylphenylimino)acenaphthene] nickel(II) [3,6-di-*tert*-butyl-4-fluorocatecholate],
- [1-(2,5-di-*tert*-butylphenylimino)-2-(2,6-di-*iso*-propylphenylimino)acenaphthene] nickel(II) [3,6-di-*tert*-butyl-4,5-difluorocatecholate],
- [1-(2,5-di-*tert*-butylphenylimino)-2-(2,6-di-*iso*-propylphenylimino)acenaphthene] nickel(II) [3,6-di-*tert*-butyl-4-methoxycatecholate],
- [1-(2,5-di-*tert*-butylphenylimino)-2-(2,6-di-*iso*-propylphenylimino)acenaphthene] nickel(II) [3,6-di-*tert*-butyl-4,5-dimethoxycatecholate],
- [1-(2,5-di-*tert*-butylphenylimino)-2-(2,6-di-*iso*-propylphenylimino)acenaphthene] nickel(II) [3,6-di-*tert*-butyl-4-*iso*-propylcatecholate],
- [1-(2,5-di-*tert*-butylphenylimino)-2-(2,6-di-*iso*-propylphenylimino)acenaphthene] nickel(II) [3,6-di-*tert*-butyl-4-cyclohexylcatecholate],

- [1-(2,5-di-*tert*-butylphenylimino)-2-(2,6-di-*iso*-propylphenylimino)acenaphthene] nickel(II) [3,5-di-*tert*-butylcatecholate],
- [1-(2,5-di-*tert*-butylphenylimino)-2-(2,6-di-*iso*-propylphenylimino)acenaphthene] nickel(II) [3,5-di-*tert*-butyl-6-chlorocatecholate],
- [1-(2,5-di-*tert*-butylphenylimino)-2-(2,6-di-*iso*-propylphenylimino)acenaphthene] nickel(II) [3,5-di-*tert*-butyl-6-nitrocatecholate],
- [1-(2,5-di-*tert*-butylphenylimino)-2-(2,6-di-*iso*-propylphenylimino)acenaphthene] nickel(II) [3,4,6-tri-*iso*-propylcatecholate],
- [1-(2,5-di-*tert*-butylphenylimino)-2-(2,6-di-*iso*-propylphenylimino)acenaphthene] nickel(II) [3,6-di-*iso*-propylcatecholate],
- [1-(2,5-di-tert-butylphenylimino)-2-(2,6-di-iso-propylphenylimino)acenaphthene] nickel(II)
- [1,4,6,8-tetra-tert-butyldibenzo[1,4]dioxine-2,3-diolate],
- [1-(2,5-di-tert-butylphenylimino)-2-(2,6-di-iso-propylphenylimino)acenaphthene] nickel(II)
- [1,4,6,7,8,9-hexachlorodibenzo[1,4]dioxine-2,3-diolate],
- [1-(2,5-di-tert-butylphenylimino)-2-(2,6-di-iso-propylphenylimino)acenaphthene] nickel(II)
- [1,4,6,7,8,9-hexabromodibenzo[1,4]dioxine-2,3-diolate],
- [1,2-bis-(2,6-dimethylphenylimino)-cyclohexane] nickel(II) [3,6-di-tert-butylcatecholate],
- [2,3-bis-(2,6-dimethylphenylimino)-[1,4]dithiane] nickel(II) [3,6-di-tert-butylcatecholate],
- [2,3-bis-(2,6-dimethylphenylimino)-piperazine] nickel(II) [3,6-di-tert-butylcatecholate],
- [1,4-dimethyl-2,3-bis-(2,6-dimethylphenylimino)-piperazine] nickel(II) [3,6-di-tert-butylcatecholate],
- [2,3-bis-(2,6-dimethylphenylimino)-bicyclo[2.2.1]-heptane] nickel(II) [3,6-di-tert-butylcatecholate],
- [1,4-dimethyl-2,3-bis-(2,6-dimethylphenylimino)-[1,4]diazepane] nickel(II) [3,6-di-tert-butylcatecholate],
- [1-methyl-2,3-bis-(2,6-dimethylphenylimino)-cyclopentane] nickel(II) [3,6-di-tert-butylcatecholate],
- [5-methyl-2,3-bis-(2,6-dimethylphenylimino)-tetrahydrofuran] nickel(II) [3,6-di-tert-butylcatecholate],

- [5-methyl-2,3-bis-(2,6-dimethylphenylimino)-2,3-dihydrohydrofuran] nickel(II) [3,6-di-tert-butylcatecholate],
- [1,2-bis-(2,6-di-iso-propylphenylimino)-cyclohexane] nickel(II) [3,6-di-tert-butylcatecholate],
- [2,3-bis-(2,6-di-iso-propylphenylimino)-[1,4]dithiane] nickel(II) [3,6-di-tert-butylcatecholate],
- [2,3-bis-(2,6-di-iso-propylphenylimino)-piperazine] nickel(II) [3,6-di-tert-butylcatecholate],
- [1,4-dimethyl-2,3-bis-(2,6-di-iso-propylphenylimino)-piperazine] nickel(II) [3,6-di-tert-butylcatecholate],
- [2,3-bis-(2,6-di-iso-propylphenylimino)-bicyclo[2.2.1]-heptane] nickel(II) [3,6-di-tert-butylcatecholate],
- [1,4-dimethyl-2,3-bis-(2,6-di-iso-propylphenylimino)-[1,4]diazepane] nickel(II) [3,6-di-tert-butylcatecholate],
- [1-methyl-2,3-bis-(2,6-di-*iso*-propylphenylimino)-cyclopentane] nickel(II) [3,6-di-*tert*-butylcatecholate],
- [5-methyl-2,3-bis-(2,6-di-*iso*-propylphenylimino)-tetrahydrofuran] nickel(II) [3,6-di-*tert*-butylcatecholate],
- [5-methyl-2,3-bis-(2,6-di-*iso*-propylphenylimino)-2,3-dihydrohydrofuran] nickel(II) [3,6-di-*tert*-butylcatecholate],
- [1-(2,6-di-iso-propylphenylimino)-2-(2,6-dimethylphenylimino)-cyclohexane] nickel(II) [3,6-di-tert-butylcatecholate],
- [2-(2,6-di-iso-propylphenylimino)-3-(2,6-dimethylphenylimino)-[1,4]dithiane] nickel(II) [3,6-di-tert-butylcatecholate],
- [2-(2,6-di-iso-propylphenylimino)-3-(2,6-dimethylphenylimino)-piperazine] nickel(II) [3,6-di-tert-butylcatecholate],
- [1,4-dimethyl-2-(2,6-di-*iso*-propylphenylimino)-3-(2,6-dimethylphenylimino)-piperazine] nickel(II) [3,6-di-*tert*-butylcatecholate],
- [2-(2,6-di-iso-propylphenylimino)-3-(2,6-dimethylphenylimino)-bicyclo[2.2.1]-heptane] nickel(II) [3,6-di-tert-butylcatecholate],
- [1,4-dimethyl-2-(2,6-di-iso-propylphenylimino)-3-(2,6-dimethylphenylimino)-[1,4]diazepane] nickel(II) [3,6-di-tert-butylcatecholate],

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[1-methyl-2-(2,6-di-iso-propylphenylimino)-3-(2,6-dimethylphenylimino)-cyclopentane] nickel(II) [3,6-di-tert-butylcatecholate],
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[5-methyl-2-(2,6-di-*iso*-propylphenylimino)-3-(2,6-dimethylphenylimino)-tetrahydrofuran] nickel(II) [3,6-di-*tert*-butylcatecholate],

[5-methyl-2-(2,6-di-*iso*-propylphenylimino)-3-(2,6-dimethylphenylimino)-2,3-dihydrohydrofuran] nickel(II) [3,6-di-*tert*-butylcatecholate],

[1-(2,6-di-iso-propylphenylimino)-2-(2,5-di-tert-butylphenylimino)-cyclohexane] nickel(II) [3,6-di-tert-butylcatecholate],

[2-(2,6-di-iso-propylphenylimino)-3-(2,5-di-tert-butylphenylimino)-[1,4]dithiane] nickel(II) [3,6-di-tert-butylcatecholate],

[2-(2,6-di-*iso*-propylphenylimino)-3-(2,5-di-*tert*-butylphenylimino)-piperazine] nickel(II) [3,6-di-*tert*-butylcatecholate],

[1,4-dimethyl-2-(2,6-di-*iso*-propylphenylimino)-3-(2,5-di-*tert*-butylphenylimino)-piperazine] nickel(II) [3,6-di-*tert*-butylcatecholate],

[2-(2,6-di-*iso*-propylphenylimino)-3-(2,5-di-*tert*-butylphenylimino)-bicyclo[2.2.1]-heptane] nickel(II) [3,6-di-*tert*-butylcatecholate],

[1,4-dimethyl-2-(2,6-di-*iso*-propylphenylimino)-3-(2,5-di-*tert*-butylphenylimino)-[1,4]diazepane] nickel(II) [3,6-di-*tert*-butylcatecholate],

[1-methyl-2-(2,6-di-*iso*-propylphenylimino)-3-(2,5-di-*tert*-butylphenylimino)-cyclopentane] nickel(II) [3,6-di-*tert*-butylcatecholate],

[5-methyl-2-(2,6-di-*iso*-propylphenylimino)-3-(2,5-di-*tert*-butylphenylimino)-tetrahydrofuran] nickel(II) [3,6-di-*tert*-butylcatecholate],

[5-methyl-2-(2,6-di-*iso*-propylphenylimino)-3-(2,5-di-*tert*-butylphenylimino)-2,3-dihydrohydrofuran] nickel(II) [3,6-di-*tert*-butylcatecholate],

[1,2-bis-(2,6-dimethylphenylimino)-cyclohexane] nickel(II) [3,5-di-tert-butylcatecholate],

[2,3-bis-(2,6-dimethylphenylimino)-[1,4]dithiane] nickel(II) [3,5-di-tert-butylcatecholate],

[2,3-bis-(2,6-dimethylphenylimino)-piperazine] nickel(II) [3,5-di-tert-butylcatecholate],

[1,4-dimethyl-2,3-bis-(2,6-dimethylphenylimino)-piperazine] nickel(II) [3,5-di-tert-butylcatecholate],

- [2,3-bis-(2,6-dimethylphenylimino)-bicyclo[2.2.1]-heptane] nickel(II) [3,5-di-tert-butylcatecholate],
- [1,4-dimethyl-2,3-bis-(2,6-dimethylphenylimino)-[1,4]diazepane] nickel(II) [3,5-di-tert-butylcatecholate],
- [1-methyl-2,3-bis-(2,6-dimethylphenylimino)-cyclopentane] nickel(II) [3,5-di-tert-butylcatecholate],
- [5-methyl-2,3-bis-(2,6-dimethylphenylimino)-tetrahydrofuran] nickel(II) [3,5-di-tert-butylcatecholate],
- [5-methyl-2,3-bis-(2,6-dimethylphenylimino)-2,3-dihydrohydrofuran] nickel(II) [3,5-di-*tert*-butylcatecholate],
- [1,2-bis-(2,6-di-iso-propylphenylimino)-cyclohexane] nickel(II) [3,5-di-tert-butylcatecholate],
- [2,3-bis-(2,6-di-iso-propylphenylimino)-[1,4]dithiane] nickel(II) [3,5-di-tert-butylcatecholate],
- [2,3-bis-(2,6-di-iso-propylphenylimino)-piperazine] nickel(II) [3,5-di-tert-butylcatecholate],
- [1,4-dimethyl-2,3-bis-(2,6-di-iso-propylphenylimino)-piperazine] nickel(II) [3,5-di-tert-butylcatecholate],
- [2,3-bis-(2,6-di-iso-propylphenylimino)-bicyclo[2.2.1]-heptane] nickel(II) [3,5-di-tert-butylcatecholate],
- [1,4-dimethyl-2,3-bis-(2,6-di-iso-propylphenylimino)-[1,4]diazepane] nickel(II) [3,5-di-tert-butylcatecholate],
- [1-methyl-2,3-bis-(2,6-di-iso-propylphenylimino)-cyclopentane] nickel(II) [3,5-di-tert-butylcatecholate],
- [5-methyl-2,3-bis-(2,6-di-*iso*-propylphenylimino)-tetrahydrofuran] nickel(II) [3,5-di-*tert*-butylcatecholate],
- [5-methyl-2,3-bis-(2,6-di-*iso*-propylphenylimino)-2,3-dihydrohydrofuran] nickel(II) [3,5-di-*tert*-butylcatecholate],
- [1-(2,6-di-*iso*-propylphenylimino)-2-(2,6-dimethylphenylimino)-cyclohexane] nickel(II) [3,5-di-*tert*-butylcatecholate],
- [2-(2,6-di-*iso*-propylphenylimino)-3-(2,6-dimethylphenylimino)-[1,4]dithiane] nickel(II) [3,5-di-*tert*-butylcatecholate],

- [2-(2,6-di-iso-propylphenylimino)-3-(2,6-dimethylphenylimino)-piperazine] nickel(II) [3,5-di-tert-butylcatecholate],
- [1,4-dimethyl-2-(2,6-di-*iso*-propylphenylimino)-3-(2,6-dimethylphenylimino)-piperazine] nickel(II) [3,5-di-*tert*-butylcatecholate],
- [2-(2,6-di-*iso*-propylphenylimino)-3-(2,6-dimethylphenylimino)-bicyclo[2.2.1]-heptane] nickel(II) [3,5-di-*tert*-butylcatecholate],
- [1,4-dimethyl-2-(2,6-di-iso-propylphenylimino)-3-(2,6-dimethylphenylimino)-[1,4]diazepane] nickel(II) [3,5-di-tert-butylcatecholate],
- [1-methyl-2-(2,6-di-*iso*-propylphenylimino)-3-(2,6-dimethylphenylimino)-cyclopentane] nickel(II) [3,5-di-*tert*-butylcatecholate],
- [5-methyl-2-(2,6-di-*iso*-propylphenylimino)-3-(2,6-dimethylphenylimino)-tetrahydrofuran] nickel(II) [3,5-di-*tert*-butylcatecholate],
- [5-methyl-2-(2,6-di-*iso*-propylphenylimino)-3-(2,6-dimethylphenylimino)-2,3-dihydrohydrofuran] nickel(II) [3,5-di-*tert*-butylcatecholate],
- [1-(2,6-di-*iso*-propylphenylimino)-2-(2,5-di-*tert*-butylphenylimino)-cyclohexane] nickel(II) [3,5-di-*tert*-butylcatecholate],
- [2-(2,6-di-*iso*-propylphenylimino)-3-(2,5-di-*tert*-butylphenylimino)-[1,4]dithiane] nickel(II) [3,5-di-*tert*-butylcatecholate],
- [2-(2,6-di-*iso*-propylphenylimino)-3-(2,5-di-*tert*-butylphenylimino)-piperazine] nickel(II) [3,5-di-*tert*-butylcatecholate],
- [1,4-dimethyl-2-(2,6-di-*iso*-propylphenylimino)-3-(2,5-di-*tert*-butylphenylimino)-piperazine] nickel(II) [3,5-di-*tert*-butylcatecholate],
- [2-(2,6-di-*iso*-propylphenylimino)-3-(2,5-di-*tert*-butylphenylimino)-bicyclo[2.2.1]-heptane] nickel(II) [3,5-di-*tert*-butylcatecholate],
- [1,4-dimethyl-2-(2,6-di-*iso*-propylphenylimino)-3-(2,5-di-*tert*-butylphenylimino)-[1,4]diazepane] nickel(II) [3,5-di-*tert*-butylcatecholate],
- [1-methyl-2-(2,6-di-*iso*-propylphenylimino)-3-(2,5-di-*tert*-butylphenylimino)-cyclopentane] nickel(II) [3,5-di-*tert*-butylcatecholate],
- [5-methyl-2-(2,6-di-*iso*-propylphenylimino)-3-(2,5-di-*tert*-butylphenylimino)-tetrahydrofuran] nickel(II) [3,5-di-*tert*-butylcatecholate],

[5-methyl-2-(2,6-di-*iso*-propylphenylimino)-3-(2,5-di-*tert*-butylphenylimino)-2,3-dihydrohydrofuran] nickel(II) [3,5-di-*tert*-butylcatecholate],

N,N'-(2,6-pyridinediyldiethylidyne)bis[2,4,6-trimethylbenzenamine] cobalt(I) [3,5-di-tert-butylcatecholate],

N,N'-(2,6-pyridinediyldiethylidyne)bis[2-methylbenzenamine] cobalt(I) [3,5-di-tert-butyl catecholate],

N,N'-(2,6-pyridinediyldiethylidyne)bis[2,6-dimethylbenzenamine] cobalt(I) [3,5-di-tert-butylcatecholate],

N,N'-(2,6-pyridinediyldiethylidyne)bis[2,4-dimethylbenzenamine] cobalt(I) [3,5-di-tert-butylcatecholate],

N,N'-(2,6-pyridinediyldiethylidyne)bis[2,6-di-*iso*-propylbenzenamine] cobalt(I) [3,5-di-*tert*-butylcatecholate],

N,N'-(2,6-pyridinediyldiethylidyne)bis[2,6-di-iso-propyl-4-methylbenzenamine] cobalt(I) [3,5-di-tert-butylcatecholate],

N,N'-(2,6-pyridinediyldiethylidyne)bis[2-iso-propyl-4-methylbenzenamine] cobalt(I) [3,5-di-tert-butylcatecholate],

N,N'-(2,6-pyridinediyldiethylidyne)bis[2-iso-propyl-6-methylbenzenamine] cobalt(I) [3,5-di-tert-butylcatecholate],

N,N'-(2,6-pyridinediyldiethylidyne)bis[2-iso-propyl-benzenamine] cobalt(I) [3,5-di-tert-butylcatecholate],

N,N'-(2,6-pyridinediyldimethylidyne)bis[2,4,6-trimethylbenzenamine] cobalt(I) [3,5-di-tert-butylcatecholate],

N,N'-(2,6-pyridinediyldimethylidyne)bis[2-methylbenzenamine] cobalt(I) [3,5-di-tert-butylcatecholate],

N,N'-(2,6-pyridinediyldimethylidyne)bis[2,6-dimethylbenzenamine] cobalt(I) [3,5-di-tert-butylcatecholate],

N,N'-(2,6-pyridinediyldimethylidyne)bis[2,4-dimethylbenzenamine] cobalt(I) [3,5-di-tert-butylcatecholate],

N,N'-(2,6-pyridinediyldimethylidyne)bis[2,6-di-iso-propylbenzenamine] cobalt(I) [3,5-di-tert-butylcatecholate],

N,N'-(2,6-pyridinediyldimethylidyne)bis[2,6-di-iso-propyl-4-methylbenzenamine] cobalt(I) [3,5-di-tert-butylcatecholate],

N,N'-(2,6-pyridinediyldimethylidyne)bis[2-iso-propyl-4-methylbenzenamine] cobalt(I) [3,5-di-tert-butylcatecholate],

N,N'-(2,6-pyridinediyldimethylidyne)bis[2-iso-propyl-6-methylbenzenamine] cobalt(I) [3,5-ditert-butylcatecholate],

N,N'-(2,6-pyridinediyldimethylidyne)bis[2-iso-propylbenzenamine] cobalt(I) [3,5-di-tert-butylcatecholate],

N,N'-(2,6-pyridinediyldiethylidyne)bis[benzenamine] cobalt(I) [3,5-di-*tert*-butylcatecholate], N,N'-(2,6-pyridinediyldiethylidyne)bis[2,4,6-trimethylbenzenamine] cobalt(I) [3,6-di-*tert*-butylcatecholate],

N,N'-(2,6-pyridinediyldiethylidyne)bis[2-methylbenzenamine] cobalt(I) [3,6-di-tert-butyl catecholate],

N,N'-(2,6-pyridinediyldiethylidyne)bis[2,6-dimethylbenzenamine] cobalt(I) [3,6-di-*tert*-butylcatecholate],

N,N'-(2,6-pyridinediyldiethylidyne)bis[2,4-dimethylbenzenamine] cobalt(I) [3,6-di-*tert*-butylcatecholate],

N,N'-(2,6-pyridinediyldiethylidyne)bis[2,6-di-*iso*-propylbenzenamine] cobalt(I) [3,6-di-*tert*-butylcatecholate],

N,N'-(2,6-pyridinediyldiethylidyne)bis[2,6-di-*iso*-propyl-4-methylbenzenamine] cobalt(I) [3,6-di-*tert*-butylcatecholate],

N,N'-(2,6-pyridinediyldiethylidyne)bis[2-iso-propyl-4-methylbenzenamine] cobalt(I) [3,6-di-tert-butylcatecholate],

N,N'-(2,6-pyridinediyldiethylidyne)bis[2-iso-propyl-6-methylbenzenamine] cobalt(I) [3,6-di-tert-butylcatecholate],

N,N'-(2,6-pyridinediyldiethylidyne)bis[2-iso-propyl-benzenamine] cobalt(I) [3,6-di-tert-butylcatecholate],

N,N'-(2,6-pyridinediyldimethylidyne)bis[2,4,6-trimethylbenzenamine] cobalt(I) [3,6-di-*tert*-butylcatecholate],

N,N'-(2,6-pyridinediyldimethylidyne)bis[2-methylbenzenamine] cobalt(I) [3,6-di-tert-butylcatecholate],

N,N'-(2,6-pyridinediyldimethylidyne)bis[2,6-dimethylbenzenamine] cobalt(I) [3,6-di-tert-butylcatecholate],

N,N'-(2,6-pyridinediyldimethylidyne)bis[2,4-dimethylbenzenamine] cobalt(I) [3,6-di-tert-butylcatecholate],

N,N'-(2,6-pyridinediyldimethylidyne)bis[2,6-di-iso-propylbenzenamine] cobalt(I) [3,6-di-tert-butylcatecholate],

N,N'-(2,6-pyridinediyldimethylidyne)bis[2,6-di-iso-propyl-4-methylbenzenamine] cobalt(I) [3,6-di-tert-butylcatecholate],

N,N'-(2,6-pyridinediyldimethylidyne)bis[2-iso-propyl-4-methylbenzenamine] cobalt(I) [3,6-ditert-butylcatecholate],

N,N'-(2,6-pyridinediyldimethylidyne)bis[2-iso-propyl-6-methylbenzenamine] cobalt(I) [3,6-di-tert-butylcatecholate],

N,N'-(2,6-pyridinediyldimethylidyne)bis[2-iso-propylbenzenamine] cobalt(I) [3,6-di-tert-butylcatecholate],

N,N'-(2,6-pyridinediyldiethylidyne)bis[benzenamine] cobalt(I) [3,6-di-tert-butylcatecholate],

N,N'-(2,6-pyridinediyldiethylidyne)bis[2,4,6-trimethylbenzenamine] cobalt(I) [3,6-di-*tert*-butyl-4-chlorocatecholate],

N,N'-(2,6-pyridinediyldiethylidyne)bis[2-methylbenzenamine] cobalt(I) [3,6-di-*tert*-butyl-4-chlorocatecholate],

N,N'-(2,6-pyridinediyldiethylidyne)bis[2,6-dimethylbenzenamine] cobalt(I) [3,6-di-*tert*-butyl-4-chlorocatecholate],

N,N'-(2,6-pyridinediyldiethylidyne)bis[2,4-dimethylbenzenamine] cobalt(I) [3,6-di-*tert*-butyl-4-chlorocatecholate],

N,N'-(2,6-pyridinediyldiethylidyne)bis[2,6-di-*iso*-propylbenzenamine] cobalt(I) [3,6-di-*tert*-butyl-4-chlorocatecholate],

N,N'-(2,6-pyridinediyldiethylidyne)bis[2,6-di-*iso*-propyl-4-methylbenzenamine] cobalt(I) [3,6-di-*tert*-butyl-4-chlorocatecholate],

N,N'-(2,6-pyridinediyldiethylidyne)bis[2-iso-propyl-4-methylbenzenamine] cobalt(I) [3,6-di-tert-butyl-4-chlorocatecholate],

N,N'-(2,6-pyridinediyldiethylidyne)bis[2-iso-propyl-6-methylbenzenamine] cobalt(I) [3,6-di-tert-butyl-4-chlorocatecholate],

N,N'-(2,6-pyridinediyldiethylidyne)bis[2-iso-propyl-benzenamine] cobalt(I) [3,6-di-tert-butyl-4-chlorocatecholate],

N,N'-(2,6-pyridinediyldimethylidyne)bis[2,4,6-trimethylbenzenamine] cobalt(I) [3,6-di-*tert*-butyl-4-chlorocatecholate],

N,N'-(2,6-pyridinediyldimethylidyne)bis[2-methylbenzenamine] cobalt(I) [3,6-di-*tert*-butyl-4-chlorocatecholate],

N,N'-(2,6-pyridinediyldimethylidyne)bis[2,6-dimethylbenzenamine] cobalt(I) [3,6-di-*tert*-butyl-4-chlorocatecholate],

N,N'-(2,6-pyridinediyldimethylidyne)bis[2,4-dimethylbenzenamine] cobalt(I) [3,6-di-*tert*-butyl-4-chlorocatecholate],

N,N'-(2,6-pyridinediyldimethylidyne)bis[2,6-di-*iso*-propylbenzenamine] cobalt(I) [3,6-di-*tert*-butyl-4-chlorocatecholate],

N,N'-(2,6-pyridinediyldimethylidyne)bis[2,6-di-*iso*-propyl-4-methylbenzenamine] cobalt(I) [3,6-di-*tert*-butyl-4-chlorocatecholate],

N,N'-(2,6-pyridinediyldimethylidyne)bis[2-iso-propyl-4-methylbenzenamine] cobalt(I) [3,6-ditert-butyl-4-chlorocatecholate],

N,N'-(2,6-pyridinediyldimethylidyne)bis[2-iso-propyl-6-methylbenzenamine] cobalt(I) [3,6-ditert-butyl-4-chlorocatecholate],

N,N'-(2,6-pyridinediyldimethylidyne)bis[2-iso-propylbenzenamine] cobalt(I) [3,6-di-tert-butyl-4-chlorocatecholate],

N,N'-(2,6-pyridinediyldiethylidyne)bis[benzenamine] cobalt(I) [3,6-di-*tert*-butyl-4-chlorocatecholate],

N,N'-(2,6-pyridinediyldiethylidyne)bis[2,4,6-trimethylbenzenamine] cobalt(I) [3,6-di-*tert*-butyl-4,5-dichlorocatecholate],

N,N'-(2,6-pyridinediyldiethylidyne)bis[2-methylbenzenamine] cobalt(I) [3,6-di-tert-butyl-4,5-dichlorocatecholate],

N,N'-(2,6-pyridinediyldiethylidyne)bis[2,6-dimethylbenzenamine] cobalt(I) [3,6-di-*tert*-butyl-4,5-dichlorocatecholate],

N,N'-(2,6-pyridinediyldiethylidyne)bis[2,4-dimethylbenzenamine] cobalt(I) [3,6-di-*tert*-butyl-4,5-dichlorocatecholate],

N,N'-(2,6-pyridinediyldiethylidyne)bis[2,6-di-iso-propylbenzenamine] cobalt(I) [3,6-di-tert-butyl-4,5-dichlorocatecholate],

N,N'-(2,6-pyridinediyldiethylidyne)bis[2,6-di-iso-propyl-4-methylbenzenamine] cobalt(I) [3,6-di-tert-butyl-4,5-dichlorocatecholate],

N,N'-(2,6-pyridinediyldiethylidyne)bis[2-iso-propyl-4-methylbenzenamine] cobalt(I) [3,6-di-tert-butyl-4,5-dichlorocatecholate],

N,N'-(2,6-pyridinediyldiethylidyne)bis[2-iso-propyl-6-methylbenzenamine] cobalt(I) [3,6-di-tert-butyl-4,5-dichlorocatecholate],

N,N'-(2,6-pyridinediyldiethylidyne)bis[2-iso-propyl-benzenamine] cobalt(I) [3,6-di-tert-butyl-4,5-dichlorocatecholate],

N,N'-(2,6-pyridinediyldimethylidyne)bis[2,4,6-trimethylbenzenamine] cobalt(I) [3,6-di-tert-butyl-4,5-dichlorocatecholate],

N,N'-(2,6-pyridinediyldimethylidyne)bis[2-methylbenzenamine] cobalt(I) [3,6-di-*tert*-butyl-4,5-dichlorocatecholate],

N,N'-(2,6-pyridinediyldimethylidyne)bis[2,6-dimethylbenzenamine] cobalt(I) [3,6-di-*tert*-butyl-4,5-dichlorocatecholate],

N,N'-(2,6-pyridinediyldimethylidyne)bis[2,4-dimethylbenzenamine] cobalt(I) [3,6-di-*tert*-butyl-4,5-dichlorocatecholate],

N,N'-(2,6-pyridinediyldimethylidyne)bis[2,6-di-*iso*-propylbenzenamine] cobalt(I) [3,6-di-*tert*-butyl-4,5-dichlorocatecholate],

N,N'-(2,6-pyridinediyldimethylidyne)bis[2,6-di-*iso*-propyl-4-methylbenzenamine] cobalt(I) [3,6-di-*tert*-butyl-4,5-dichlorocatecholate],

N,N'-(2,6-pyridinediyldimethylidyne)bis[2-iso-propyl-4-methylbenzenamine] cobalt(I) [3,6-ditert-butyl-4,5-dichlorocatecholate],

N,N'-(2,6-pyridinediyldimethylidyne)bis[2-iso-propyl-6-methylbenzenamine] cobalt(I) [3,6-di-tert-butyl-4,5-dichlorocatecholate],

N,N'-(2,6-pyridinediyldimethylidyne)bis[2-iso-propylbenzenamine] cobalt(I) [3,6-di-tert-butyl-4,5-dichlorocatecholate],

N,N'-(2,6-pyridinediyldiethylidyne)bis[benzenamine] cobalt(I) [3,6-di-*tert*-butyl-4,5-dichlorocatecholate],

N,N'-(2,6-pyridinediyldiethylidyne)bis[2,4,6-trimethylbenzenamine] cobalt(I) [3,6-di-*tert*-butyl-4-methoxycatecholate],

N,N'-(2,6-pyridinediyldiethylidyne)bis[2-methylbenzenamine] cobalt(I) [3,6-di-*tert*-butyl-4-methoxycatecholate],

N,N'-(2,6-pyridinediyldiethylidyne)bis[2,6-dimethylbenzenamine] cobalt(I) [3,6-di-*tert*-butyl-4-methoxycatecholate],

N,N'-(2,6-pyridinediyldiethylidyne)bis[2,4-dimethylbenzenamine] cobalt(I) [3,6-di-*tert*-butyl-4-methoxycatecholate],

N,N'-(2,6-pyridinediyldiethylidyne)bis[2,6-di-iso-propylbenzenamine] cobalt(I) [3,6-di-tert-butyl-4-methoxycatecholate],

N,N'-(2,6-pyridinediyldiethylidyne)bis[2,6-di-*iso*-propyl-4-methylbenzenamine] cobalt(I) [3,6-di-*tert*-butyl-4-methoxycatecholate],

N,N'-(2,6-pyridinediyldiethylidyne)bis[2-iso-propyl-4-methylbenzenamine] cobalt(I) [3,6-di-tert-butyl-4-methoxycatecholate],

N,N'-(2,6-pyridinediyldiethylidyne)bis[2-iso-propyl-6-methylbenzenamine] cobalt(I) [3,6-di-tert-butyl-4-methoxycatecholate],

N,N'-(2,6-pyridinediyldiethylidyne)bis[2-iso-propyl-benzenamine] cobalt(I) [3,6-di-tert-butyl-4-methoxycatecholate],

N,N'-(2,6-pyridinediyldimethylidyne)bis[2,4,6-trimethylbenzenamine] cobalt(I) [3,6-di-*tert*-butyl-4-methoxycatecholate],

N,N'-(2,6-pyridinediyldimethylidyne)bis[2-methylbenzenamine] cobalt(I) [3,6-di-*tert*-butyl-4-methoxycatecholate],

N,N'-(2,6-pyridinediyldimethylidyne)bis[2,6-dimethylbenzenamine] cobalt(I) [3,6-di-*tert*-butyl-4-methoxycatecholate],

N,N'-(2,6-pyridinediyldimethylidyne)bis[2,4-dimethylbenzenamine] cobalt(I) [3,6-di-*tert*-butyl-4-methoxycatecholate],

N,N'-(2,6-pyridinediyldimethylidyne)bis[2,6-di-iso-propylbenzenamine] cobalt(I) [3,6-di-tert-butyl-4-methoxycatecholate],

N,N'-(2,6-pyridinediyldimethylidyne)bis[2,6-di-iso-propyl-4-methylbenzenamine] cobalt(I) [3,6-di-tert-butyl-4-methoxycatecholate],

N,N'-(2,6-pyridinediyldimethylidyne)bis[2-iso-propyl-4-methylbenzenamine] cobalt(I) [3,6-ditert-butyl-4-methoxycatecholate],

N,N'-(2,6-pyridinediyldimethylidyne)bis[2-iso-propyl-6-methylbenzenamine] cobalt(I) [3,6-di-tert-butyl-4-methoxycatecholate],

N,N'-(2,6-pyridinediyldimethylidyne)bis[2-iso-propylbenzenamine] cobalt(I) [3,6-di-tert-butyl-4-methoxycatecholate],

N,N'-(2,6-pyridinediyldiethylidyne)bis[benzenamine] cobalt(I) [3,6-di-*tert*-butyl-4-methoxycatecholate],

N,N'-(2,6-pyridinediyldiethylidyne)bis[2,4,6-trimethylbenzenamine] cobalt(I) [3,6-di-*tert*-butyl-4,5-dimethoxycatecholate],

N,N'-(2,6-pyridinediyldiethylidyne)bis[2-methylbenzenamine] cobalt(I) [3,6-di-*tert*-butyl-4,5-dimethoxycatecholate],

N,N'-(2,6-pyridinediyldiethylidyne)bis[2,6-dimethylbenzenamine] cobalt(I) [3,6-di-*tert*-butyl-4,5-dimethoxycatecholate],

N,N'-(2,6-pyridinediyldiethylidyne)bis[2,4-dimethylbenzenamine] cobalt(I) [3,6-di-*tert*-butyl-4,5-dimethoxycatecholate],

N,N'-(2,6-pyridinediyldiethylidyne)bis[2,6-di-*iso*-propylbenzenamine] cobalt(I) [3,6-di-*tert*-butyl-4,5-dimethoxycatecholate],

N,N'-(2,6-pyridinediyldiethylidyne)bis[2,6-di-*iso*-propyl-4-methylbenzenamine] cobalt(I) [3,6-di-*tert*-butyl-4,5-dimethoxycatecholate],

N,N'-(2,6-pyridinediyldiethylidyne)bis[2-iso-propyl-4-methylbenzenamine] cobalt(I) [3,6-di-tert-butyl-4,5-dimethoxycatecholate],

N,N'-(2,6-pyridinediyldiethylidyne)bis[2-iso-propyl-6-methylbenzenamine] cobalt(I) [3,6-di-tert-butyl-4,5-dimethoxycatecholate],

N,N'-(2,6-pyridinediyldiethylidyne)bis[2-iso-propyl-benzenamine] cobalt(I) [3,6-di-tert-butyl-4,5-dimethoxycatecholate],

N,N'-(2,6-pyridinediyldimethylidyne)bis[2,4,6-trimethylbenzenamine] cobalt(I) [3,6-di-*tert*-butyl-4,5-dimethoxycatecholate],

N,N'-(2,6-pyridinediyldimethylidyne)bis[2-methylbenzenamine] cobalt(I) [3,6-di-*tert*-butyl-4,5-dimethoxycatecholate],

N,N'-(2,6-pyridinediyldimethylidyne)bis[2,6-dimethylbenzenamine] cobalt(I) [3,6-di-*tert*-butyl-4,5-dimethoxycatecholate],

N,N'-(2,6-pyridinediyldimethylidyne)bis[2,4-dimethylbenzenamine] cobalt(I) [3,6-di-*tert*-butyl-4,5-dimethoxycatecholate],

N,N'-(2,6-pyridinediyldimethylidyne)bis[2,6-di-*iso*-propylbenzenamine] cobalt(I) [3,6-di-*tert*-butyl-4,5-dimethoxycatecholate],

N,N'-(2,6-pyridinediyldimethylidyne)bis[2,6-di-*iso*-propyl-4-methylbenzenamine] cobalt(I) [3,6-di-*tert*-butyl-4,5-dimethoxycatecholate],

N,N'-(2,6-pyridinediyldimethylidyne)bis[2-iso-propyl-4-methylbenzenamine] cobalt(I) [3,6-ditert-butyl-4,5-dimethoxycatecholate],

N,N'-(2,6-pyridinediyldimethylidyne)bis[2-iso-propyl-6-methylbenzenamine] cobalt(I) [3,6-ditert-butyl-4,5-dimethoxycatecholate],

N,N'-(2,6-pyridinediyldimethylidyne)bis[2-iso-propylbenzenamine] cobalt(I) [3,6-di-tert-butyl-4,5-dimethoxycatecholate],

N,N'-(2,6-pyridinediyldiethylidyne)bis[benzenamine] cobalt(I) [3,6-di-tert-butyl-4,5-dimethoxycatecholate],

N,N'-(2,6-pyridinediyldiethylidyne)bis[2,4,6-trimethylbenzenamine] cobalt(I) [4-iso-propylcatecholate],

N,N'-(2,6-pyridinediyldiethylidyne)bis[2-methylbenzenamine] cobalt(I) [4-iso-propylcatecholate],

N,N'-(2,6-pyridinediyldiethylidyne)bis[2,6-dimethylbenzenamine] cobalt(I) [4-iso-propylcatecholate],

N,N'-(2,6-pyridinediyldiethylidyne)bis[2,4-dimethylbenzenamine] cobalt(I) [4-iso-propylcatecholate],

N,N'-(2,6-pyridinediyldiethylidyne)bis[2,6-di-*iso*-propylbenzenamine] cobalt(I) [4-*iso*-propylcatecholate],

N,N'-(2,6-pyridinediyldiethylidyne)bis[2,6-di-*iso*-propyl-4-methylbenzenamine] cobalt(I) [4-*iso*-propylcatecholate],

N,N'-(2,6-pyridinediyldiethylidyne)bis[2-iso-propyl-4-methylbenzenamine] cobalt(I) [4-iso-propylcatecholate],

N,N'-(2,6-pyridinediyldiethylidyne)bis[2-iso-propyl-6-methylbenzenamine] cobalt(I) [4-iso-propylcatecholate],

N,N'-(2,6-pyridinediyldiethylidyne)bis[2-iso-propyl-benzenamine] cobalt(I) [4-iso-propylcatecholate],

N,N'-(2,6-pyridinediyldiethylidyne)bis[2,4,6-trimethylbenzenamine] cobalt(I) [4,5-di-iso-propylcatecholate],

N,N'-(2,6-pyridinediyldiethylidyne)bis[2-methylbenzenamine] cobalt(I) [4,5-di-iso-propylcatecholate],

N,N'-(2,6-pyridinediyldiethylidyne)bis[2,6-dimethylbenzenamine] cobalt(I) [4,5-di-iso-propylcatecholate],

N,N'-(2,6-pyridinediyldiethylidyne)bis[2,4-dimethylbenzenamine] cobalt(I) [4,5-di-iso-propylcatecholate],

N,N'-(2,6-pyridinediyldiethylidyne)bis[2,6-di-*iso*-propylbenzenamine] cobalt(I) [4,5-di-*iso*-propylcatecholate],

N,N'-(2,6-pyridinediyldiethylidyne)bis[2,6-di-*iso*-propyl-4-methylbenzenamine] cobalt(I) [4,5-di-*iso*-propylcatecholate],

N,N'-(2,6-pyridinediyldiethylidyne)bis[2-iso-propyl-4-methylbenzenamine] cobalt(I) [4,5-di-iso-propylcatecholate],

N,N'-(2,6-pyridinediyldiethylidyne)bis[2-iso-propyl-6-methylbenzenamine] cobalt(I) [4,5-di-iso-propylcatecholate],

N,N'-(2,6-pyridinediyldiethylidyne)bis[2-iso-propyl-benzenamine] cobalt(I) [4,5-di-iso-propylcatecholate],

N,N'-(2,6-pyridinediyldiethylidyne)bis[2,4,6-trimethylbenzenamine] cobalt(I) [4-cyclohexylcatecholate],

N,N'-(2,6-pyridinediyldiethylidyne)bis[2-methylbenzenamine] cobalt(I) [4-cyclohexylcatecholate],

N,N'-(2,6-pyridinediyldiethylidyne)bis[2,6-dimethylbenzenamine] cobalt(I) [4-cyclohexylcatecholate],

N,N'-(2,6-pyridinediyldiethylidyne)bis[2,4-dimethylbenzenamine] cobalt(I) [4-cyclohexylcatecholate],

N,N'-(2,6-pyridinediyldiethylidyne)bis[2,6-di-iso-propylbenzenamine] cobalt(I) [4-cyclohexylcatecholate],

N,N'-(2,6-pyridinediyldiethylidyne)bis[2,6-di-iso-propyl-4-methylbenzenamine] cobalt(I) [4-cyclohexylcatecholate],

N,N'-(2,6-pyridinediyldiethylidyne)bis[2-iso-propyl-4-methylbenzenamine] cobalt(I) [4-cyclohexylcatecholate],

N,N'-(2,6-pyridinediyldiethylidyne)bis[2-iso-propyl-6-methylbenzenamine] cobalt(I) [4-cyclohexylcatecholate],

N,N'-(2,6-pyridinediyldiethylidyne)bis[2-iso-propyl-benzenamine] cobalt(I) [4-cyclohexylcatecholate],

N,N'-(2,6-pyridinediyldiethylidyne)bis[2,4,6-trimethylbenzenamine] cobalt(I) [3,4,6-tri-iso-propylcatecholate],

N,N'-(2,6-pyridinediyldiethylidyne)bis[2-methylbenzenamine] cobalt(I) [3,4,6-tri-iso-propylcatecholate],

N,N'-(2,6-pyridinediyldiethylidyne)bis[2,6-dimethylbenzenamine] cobalt(I) [3,4,6-tri-iso-propylcatecholate],

N,N'-(2,6-pyridinediyldiethylidyne)bis[2,4-dimethylbenzenamine] cobalt(I) [3,4,6-tri-iso-propylcatecholate],

N,N'-(2,6-pyridinediyldiethylidyne)bis[2,6-di-iso-propylbenzenamine] cobalt(I) [3,4,6-tri-iso-propylcatecholate],

N,N'-(2,6-pyridinediyldiethylidyne)bis[2,6-di-*iso*-propyl-4-methylbenzenamine] cobalt(I) [3,4,6-tri-*iso*-propylcatecholate],

N,N'-(2,6-pyridinediyldiethylidyne)bis[2-iso-propyl-4-methylbenzenamine] cobalt(I) [3,4,6-tri-iso-propylcatecholate],

N,N'-(2,6-pyridinediyldiethylidyne)bis[2-iso-propyl-6-methylbenzenamine] cobalt(I) [3,4,6-tri-iso-propylcatecholate],

N,N'-(2,6-pyridinediyldiethylidyne)bis[2-iso-propyl-benzenamine] cobalt(I) [3,4,6-tri-iso-propylcatecholate],

N,N'-(2,6-pyridinediyldiethylidyne)bis[2,4,6-trimethylbenzenamine] cobalt(I) [3,6-di-iso-propylcatecholate],

N,N'-(2,6-pyridinediyldiethylidyne)bis[2-methylbenzenamine] cobalt(I) [3,6-di-iso-propylcatecholate],

N,N'-(2,6-pyridinediyldiethylidyne)bis[2,6-dimethylbenzenamine] cobalt(I) [3,6-di-iso-propylcatecholate],

N,N'-(2,6-pyridinediyldiethylidyne)bis[2,4-dimethylbenzenamine] cobalt(I) [3,6-di-iso-propylcatecholate],

N,N'-(2,6-pyridinediyldiethylidyne)bis[2,6-di-iso-propylbenzenamine] cobalt(I) [3,6-di-iso-propylcatecholate],

N,N'-(2,6-pyridinediyldiethylidyne)bis[2,6-di-*iso*-propyl-4-methylbenzenamine] cobalt(I) [3,6-di-*iso*-propylcatecholate],

N,N'-(2,6-pyridinediyldiethylidyne)bis[2-iso-propyl-4-methylbenzenamine] cobalt(I) [3,6-di-iso-propylcatecholate],

N,N'-(2,6-pyridinediyldiethylidyne)bis[2-iso-propyl-6-methylbenzenamine] cobalt(I) [3,6-di-iso-propylcatecholate],

N,N'-(2,6-pyridinediyldiethylidyne)bis[2-iso-propyl-benzenamine] cobalt(I) [3,6-di-iso-propylcatecholate],

N,N'-(2,6-pyridinediyldiethylidyne)bis[2,4,6-trimethylbenzenamine] cobalt(I) [naphthalene-2,3-diolate],

N,N'-(2,6-pyridinediyldiethylidyne)bis[2-methylbenzenamine] cobalt(I) [naphthalene-2,3-diolate],

N,N'-(2,6-pyridinediyldiethylidyne)bis[2,6-dimethylbenzenamine] cobalt(I) [naphthalene-2,3-diolate],

N,N'-(2,6-pyridinediyldiethylidyne)bis[2,4-dimethylbenzenamine] cobalt(I) [naphthalene-2,3-diolate],

N,N'-(2,6-pyridinediyldiethylidyne)bis[2,6-di-*iso*-propylbenzenamine] cobalt(I) [naphthalene-2,3-diolate],

N,N'-(2,6-pyridinediyldiethylidyne)bis[2,6-di-*iso*-propyl-4-methylbenzenamine] cobalt(I) [naphthalene-2,3-diolate],

N,N'-(2,6-pyridinediyldiethylidyne)bis[2-iso-propyl-4-methylbenzenamine] cobalt(I) [naphthalene-2,3-diolate],

N,N'-(2,6-pyridinediyldiethylidyne)bis[2-iso-propyl-6-methylbenzenamine] cobalt(I) [naphthalene-2,3-diolate],

N,N'-(2,6-pyridinediyldiethylidyne)bis[2-iso-propyl-benzenamine] cobalt(I) [naphthalene-2,3-diolate],

N,N'-(2,6-pyridinediyldiethylidyne)bis[2,4,6-trimethylbenzenamine] cobalt(I) [phenanthrene-9,10-diolate],

N,N'-(2,6-pyridinediyldiethylidyne)bis[2-methylbenzenamine] cobalt(I) [phenanthrene-9,10-diolate],

N,N'-(2,6-pyridinediyldiethylidyne)bis[2,6-dimethylbenzenamine] cobalt(I) [phenanthrene-9,10-diolate],

N,N'-(2,6-pyridinediyldiethylidyne)bis[2,4-dimethylbenzenamine] cobalt(I) [phenanthrene-9,10-diolate],

N,N'-(2,6-pyridinediyldiethylidyne)bis[2,6-di-iso-propylbenzenamine] cobalt(I) [phenanthrene-9,10-diolate],

N,N'-(2,6-pyridinediyldiethylidyne)bis[2,6-di-iso-propyl-4-methylbenzenamine] cobalt(I) [phenanthrene-9,10-diolate],

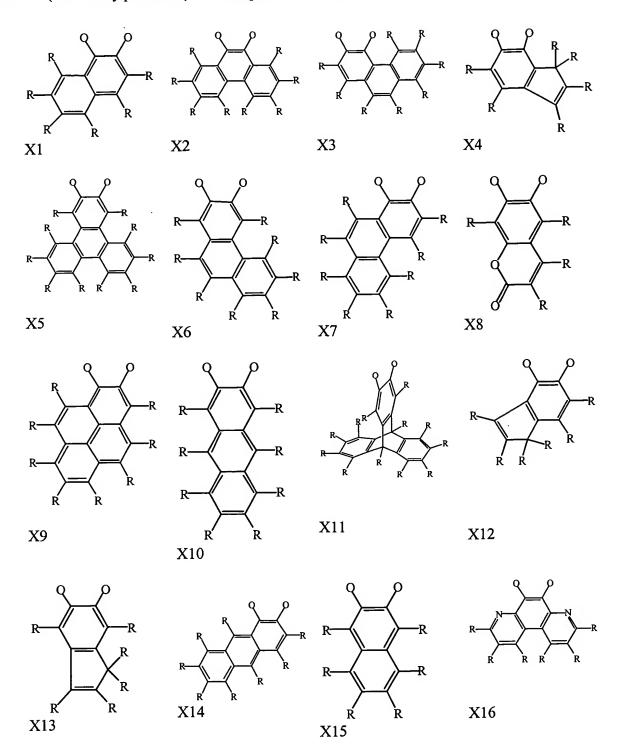
N,N'-(2,6-pyridinediyldiethylidyne)bis[2-iso-propyl-4-methylbenzenamine] cobalt(I) [phenanthrene-9,10-diolate],

N,N'-(2,6-pyridinediyldiethylidyne)bis[2-iso-propyl-6-methylbenzenamine] cobalt(I) [phenanthrene-9,10-diolate],

N,N'-(2,6-pyridinediyldiethylidyne)bis[2-iso-propyl-benzenamine] cobalt(I) [phenanthrene-9,10-diolate],

or any of the above compounds where "cobalt(I)" is replaced with platinum(II), palladium(II), nickel(II), iron(II), copper(I), or cobalt(II) and where "nickel(II)" is replaced with platinum(II), palladium(II), cobalt(I), iron(II), copper(I), or cobalt(II).

16. (Previously presented) The compound of claim 1 where X is represented by the formulae:



$$X^*$$
 $X^*$ 
 $X^*$ 

$$X^*$$
 $X^*$ 
 $X^*$ 

where each R is, independently, selected from the group consisting of hydrogen, methyl, ethyl, ethenyl, ethynyl and all isomers of propyl, butyl, pentyl, hexyl, heptyl, octyl, nonyl, decyl, undecyl, dodecyl, tridecyl, tetradecyl, pentadecyl, hexadecyl, heptadecyl, octadecyl, nonadecyl, eicosyl, heneicosyl, docosyl, tricosyl, tetracosyl, pentacosyl, hexacosyl, heptacosyl, octacosyl, nonacosyl, triacontyl, propenyl, butenyl, pentenyl, hexenyl, heptenyl, octenyl, nonenyl, decenyl, undecenyl, dodecenyl, tridecenyl, tetradecenyl, pentadecenyl, hexadecenyl, heptadecenyl, octadecenyl, nonadecenyl, eicosenyl, heneicosenyl, docosenyl, tricosenyl, tetracosenyl, pentacosenyl, hexacosenyl, heptacosenyl, octacosenyl, nonacosenyl, triacontenyl, propynyl, butynyl, pentynyl, hexynyl, heptynyl, octynyl, nonynyl, decynyl, undecynyl, dodecynyl, tridecynyl, tetradecynyl, pentadecynyl, hexadecynyl, heptadecynyl, octadecynyl, nonadecynyl, eicosynyl, heneicosynyl, docosynyl, tricosynyl, tetracosynyl, pentacosynyl, hexacosynyl, heptacosynyl, octacosynyl, nonacosynyl, and triacontynyl, phenyl, napthyl, anthracenyl, pyrenyl, biphenyl, benzyl, cyclopropyl, cyclobutyl, cyclopentyl, cyclohexyl, cyclohexyl, cyclooctyl, cyclononyl, cyclodecyl, cycloundecyl, cyclododecyl, fluoro, chloro, bromo, iodo, trimethylsilyl, triethylsilyl, tripropylsilyl, dimethylethylsilyl, diethylmethylsilyl, trimethoxysilyl, tirethoxysilyl, tripropoxysilyl, methoxy, ethoxy, propoxy, butoxy, phenoxy, or a nitro, carboxylic acid, ester, ketone (excluding 1,2-diketones) or aldehyde group, provided that two R groups can connect to form substituted or unsubstituted, saturated, partially unsaturated or aromatic ring structures; and each X\* is, independently, F, Cl, Br, I, OR\*\*, SR\*\*, NR\*\*2, PR\*\*2, or NO2; and

- each R\* and each R\*\* are, independently, selected from the group consisting of methyl, ethyl, *n*-propyl, *iso*-propyl, *n*-butyl, *sec*-butyl, *tert*-butyl, and cyclohexyl.
- 17. (Original) The compound of claim 16, where R\* is *tert*-butyl or *iso*-propyl, R\*\* is methyl, and X\* is F, Cl, Br or OR\*\*.
- 18. (Previously presented) The compound of claim 1 where each X is independently selected from the group consisting of ZETA-CATACHOLATES.
- 19. (Currently amended) The composition compound of claim 1 where each X is independently selected from the group consisting of THETA-CATACHOLATES.
- 20. (Withdrawn) A catalyst system comprising an activator and the compound of claim 1.
- 21. (Withdrawn) The catalyst system of claim 20 wherein the activator comprises an alumoxane and or a modified alumoxane.
- 22. (Withdrawn) The catalyst system of claim 20 wherein the activator comprises methyl alumoxane and or modified methyl alumoxane.
- 23. (Withdrawn) The catalyst system of claim 20 wherein the activator comprises [Me<sub>2</sub>PhNH][B(C<sub>6</sub>F<sub>5</sub>)<sub>4</sub>], [Ph<sub>3</sub>C][B(C<sub>6</sub>F<sub>5</sub>)<sub>4</sub>], [Me<sub>2</sub>PhNH][B((C<sub>6</sub>H<sub>3</sub>-3,5-(CF<sub>3</sub>)<sub>2</sub>))<sub>4</sub>], [Ph<sub>3</sub>C][B((C<sub>6</sub>H<sub>3</sub>-3,5-(CF<sub>3</sub>)<sub>2</sub>))<sub>4</sub>], [Bu<sub>3</sub>NH][BF<sub>4</sub>], [NH<sub>4</sub>][PF<sub>6</sub>], [NH<sub>4</sub>][SbF<sub>6</sub>], [NH<sub>4</sub>][AsF<sub>6</sub>], [NH<sub>4</sub>][B(C<sub>6</sub>H<sub>5</sub>)<sub>4</sub>], B(C<sub>6</sub>F<sub>5</sub>)<sub>3</sub> and/or B(C<sub>6</sub>H<sub>5</sub>)<sub>3</sub>.
- 24. (Withdrawn) The catalyst system of claim 20 wherein the activator is an ionic stoichiometric activator compound.
- 25. (Withdrawn) The catalyst system of claim 20 wherein the activator is a neutral stoichiometric activator compound.

- 26. (Withdrawn) The catalyst system of claim 20 wherein the activator is a non-coordinating anion.
- 27. (Withdrawn) The catalyst system of claim 20 wherein the activator is selected from the group consisting of: trimethylammonium tetraphenylborate, triethylammonium tetraphenylborate, tripropylammonium tetraphenylborate, tri(n-butyl)ammonium tetraphenylborate, tri(tert-butyl)ammonium tetraphenylborate, N,N-dimethylanilinium tetraphenylborate, N,N-diethylanilinium tetraphenylborate, N,N-dimethyl-(2,4,6trimethylanilinium) tetraphenylborate, trimethylammonium tetrakis(pentafluorophenyl)borate, triethylammonium tetrakis(pentafluorophenyl)borate, tripropylammonium tetrakis(pentafluorophenyl)borate, tri(n-butyl)ammonium tetrakis(pentafluorophenyl)borate, tri(sec-butyl)ammonium tetrakis(pentafluorophenyl)borate, N,N-dimethylanilinium tetrakis(pentafluorophenyl)borate, N,N-diethylanilinium tetrakis(pentafluorophenyl)borate, N.N-dimethyl-(2,4,6-trimethylanilinium) tetrakis(pentafluorophenyl)borate, trimethylammonium tetrakis-(2,3,4,6tetrafluorophenyl) borate, triethylammonium tetrakis-(2,3,4,6-tetrafluorophenyl)borate, tripropylammonium tetrakis-(2,3,4,6-tetrafluorophenyl)borate, tri(n-butyl)ammonium tetrakis-(2,3,4,6-tetrafluorophenyl)borate, dimethyl(tert-butyl)ammonium tetrakis-(2,3,4,6-tetrafluorophenyl)borate, N,N-dimethylanilinium tetrakis-(2,3,4,6tetrafluorophenyl)borate, N,N-diethylanilinium tetrakis-(2,3,4,6-tetrafluorophenyl)borate, N,N-dimethyl-(2,4,6-trimethylanilinium) tetrakis-(2,3,4,6-tetrafluorophenyl)borate, trimethylammonium tetrakis(perfluoronaphthyl)borate, triethylammonium tetrakis(perfluoronaphthyl)borate, tripropylammonium tetrakis(perfluoronaphthyl)borate, tri(n-butyl)ammonium tetrakis(perfluoronaphthyl)borate, tri(tert-butyl)ammonium tetrakis(perfluoronaphthyl)borate, N,N-dimethylanilinium tetrakis(perfluoronaphthyl)borate, N,N-diethylanilinium tetrakis(perfluoronaphthyl)borate, N,N-dimethyl-(2,4,6-trimethylanilinium) tetrakis(perfluoronaphthyl)borate, trimethylammonium tetrakis(perfluorobiphenyl)borate,

triethylammonium tetrakis(perfluorobiphenyl)borate, tripropylammonium tetrakis(perfluorobiphenyl)borate, tri(n-butyl)ammonium tetrakis(perfluorobiphenyl)borate, tri(tert-butyl)ammonium tetrakis(perfluorobiphenyl)borate, N,N-dimethylanilinium tetrakis(perfluorobiphenyl)borate, N,N-diethylanilinium tetrakis(perfluorobiphenyl)borate, N,N-dimethyl-(2,4,6-trimethylanilinium) tetrakis(perfluorobiphenyl)borate, trimethylammonium tetrakis(3,5bis(trifluoromethyl)phenyl)borate, triethylammonium tetrakis(3,5bis(trifluoromethyl)phenyl)borate, tripropylammonium tetrakis(3,5bis(trifluoromethyl)phenyl)borate, tri(n-butyl)ammonium tetrakis(3,5bis(trifluoromethyl)phenyl)borate, tri(tert-butyl)ammonium tetrakis(3,5bis(trifluoromethyl)phenyl)borate, N,N-dimethylanilinium tetrakis(3,5bis(trifluoromethyl)phenyl)borate, N,N-diethylanilinium tetrakis(3,5bis(trifluoromethyl)phenyl)borate, N,N-dimethyl-(2,4,6-trimethylanilinium) tetrakis(3,5bis(trifluoromethyl)phenyl)borate, di-(iso-propyl)ammonium tetrakis(pentafluorophenyl)borate, and dicyclohexylammonium tetrakis(pentafluorophenyl)borate, tri(o-tolyl)phosphonium tetrakis(pentafluorophenyl)borate, tri(2.6-dimethylphenyl)phosphonium tetrakis(pentafluorophenyl)borate, tropillium tetraphenylborate, triphenylcarbenium tetraphenylborate, triphenylphosphonium tetraphenylborate, triethylsilylium tetraphenylborate, benzene(diazonium)tetraphenylborate, tropillium tetrakis(pentafluorophenyl)borate, triphenylcarbenium tetrakis(pentafluorophenyl)borate, triphenylphosphonium tetrakis(pentafluorophenyl)borate, triethylsilylium tetrakis(pentafluorophenyl)borate, benzene(diazonium) tetrakis(pentafluorophenyl)borate, tropillium tetrakis-(2,3,4,6-tetrafluorophenyl)borate, triphenylcarbenium tetrakis-(2,3,4,6tetrafluorophenyl)borate, triphenylphosphonium tetrakis-(2,3,4,6tetrafluorophenyl)borate, triethylsilylium tetrakis-(2,3,4,6-tetrafluorophenyl)borate, benzene(diazonium) tetrakis-(2,3,4,6-tetrafluorophenyl)borate, tropillium tetrakis(perfluoronaphthyl)borate, triphenylcarbenium tetrakis(perfluoronaphthyl)borate, triphenylphosphonium tetrakis(perfluoronaphthyl)borate, triethylsilylium

tetrakis(perfluoronaphthyl)borate, benzene(diazonium) tetrakis(perfluoronaphthyl)borate, tropillium tetrakis(perfluorobiphenyl)borate, triphenylphosphonium tetrakis(perfluorobiphenyl)borate, triphenylphosphonium tetrakis(perfluorobiphenyl)borate, triethylsilylium tetrakis(perfluorobiphenyl)borate, benzene(diazonium) tetrakis(perfluorobiphenyl)borate, tropillium tetrakis(3,5-bis(trifluoromethyl)phenyl)borate, triphenylcarbenium tetrakis(3,5-bis(trifluoromethyl)phenyl)borate, triphenylphosphonium tetrakis(3,5-bis(trifluoromethyl)phenyl)borate, triethylsilylium tetrakis(3,5-bis(trifluoromethyl)phenyl)borate, and benzene(diazonium) tetrakis(3,5-bis(trifluoromethyl)phenyl)borate.

- 28. (Withdrawn) The catalyst system of claim 20 further comprising a co-activator.
- 29. (Withdrawn) A composition comprising a compound of claim 1 and a support.
- 30. (Withdrawn) A composition comprising a catalyst system of claim 20 and a support.
- 31. (Withdrawn) The composition of claim 29 where the support comprises one or more Group-2, -3, -4, -5, -13, or -14 metal or metalloid oxides.
- 32. (Withdrawn) The composition of claim 29 where the support comprises silica, alumina, silica-alumina, or mixtures thereof.
- 33. (Withdrawn) The composition of claim 29 where the support is silica.
- 34. (Currently amended) A method to polymerize an unsaturated monomer comprising contacting the monomer with the catalyst system of any of claim 20.
- 35. (Withdrawn) A method to polymerize an unsaturated monomer comprising contacting the monomer with the composition of claim 30.

- 36. (Withdrawn) A method to oligomerize an unsaturated monomer comprising contacting the monomer with the catalyst system of claim 20.
- 37. (Withdrawn) A method to oligomerize an unsaturated monomer comprising contacting the monomer with the composition of claim 30.
- 38. (Withdrawn) The method of claim 34 where the monomer comprises one or more  $C_2$  to  $C_{100}$  olefins.
- 39. (Withdrawn) The method of claim 34 where the monomer comprises one or more of ethylene, propylene, butene, pentene, hexene, heptene, octene, nonene, decene, dodecene, 4-methylpentene-1, 3-methylpentene-1, 3,5,5-trimethylhexene-1, and 5-ethylnonene-1.
- 40. (Currently amended) The method of claim 1 claim 34 where the monomer comprises ethylene.
- 41. (Currently amended) The method of claim 1 claim 34 where the monomer comprises propylene.
- 42. (Previously presented) The transition metal compound of claim 1 wherein M is nickel, the compound is dimagnetic and the coordination sphere of the compound is arranged in a square planar geometry.
- 43. (Previously presented) The compound of claim 1 wherein is L is selected from the group consisting of IOTA-LIGANDS.
- 44. (Previously presented) A catalyst system comprising the compound of claim 42, an activator and an optional support.

- 45. (Withdrawn) A method to oligomerize or polymerize an unsaturated monomer comprising contacting the monomer with the catalyst system of claim 44.
- 46. (Withdrawn) The method of claim 34 wherein the monomer comprises one or more norbornenes, substituted norbornenes, cyclopentadienyls or substituted cyclopentene.
- 47. (New) A transition metal compound represented by the formula LMX wherein M is a Group 3 to 11 metal; L is a bulky bidentate or tridentate neutral ligand that is bonded to M by two or three heteroatoms and at least one heteroatom is nitrogen; and X is a substituted catecholate ligand having at least one substituent that is not hydrogen and does not contain a 1,2-diketone functionality.
- 48. (New) The compound of claim 47 where M is a Group 8, 9, 10 or 11 metal.
- 49. (New) The compound of claim 47 wherein M is Fe, Ru, Os, Co, Rh, Ir, Ni, Pd, Pt, Cu, Ag or Au.
- 50. (New) The compound of claim 47 wherein M is Fe, Co, Ni or Pd.
- 51. (New) The compound of claim 47 wherein L is not a ligand selected from the group consisting of: substituted and unsubstituted 2,2'-bipyridyl, 2,2'-biquinolinyl, 2,2'-bipyrazinyl, 1,10-phenanthroline, dipyridin-2-yl-amine, dipyridin-2-yl-methane, N¹-(2-amino-ethyl)ethane-1,2-diamine, N¹-(3-amino-propyl)propane-1,3-diamine, ethane-1,2-diamine, propane-1,3-diamine, cyclohexane-1,2-diamine, N,N'-bis(napthalen-1-ylmethylene)ethane-1,2-diamine, N,N'-bis(napthalen-1-ylmethylene)ethane-1,2-diamine, N,N'-bis(napthalen-1-ylmethylene)propane-1,3-diamine, N,N'-dibenzylidene-propane-1,3-diamine, N¹-napthalen-1-ylmethylene-ethane-1,2-diamine, 2-[(3-amino-propylimino)methyl]phenol, 2,4,4-trimethyl-1,5,9-triaza-cyclododec-1-ene, 1,4,7-trimethyl-[1,4,7]triazonane, [2,2';6'2']terpyridine, N-[2-dimethylaminoethyl)-N,N',N'-trimethylethane-1,2-diamine, cyclopenta[2,1-b;3,4-

b']dipyridin-5-one, 2-(2-pyridylsulfanyl)pyridine, 2-(2-pyridyloxy)pyridine, benzylbis(pyridin-2-ylmethyl)amine, 2-pyridin-2-yl-quinoxaline,  $N^1$ -ethylidene-ethane-1,2-diamine, and bis(1H-benzoimidazol-2-ylmethyl)amine where substitution refers to replacing one or more existing hydrogen atoms bonded to carbon with another atom or group of atoms; and 1,4-diaza-1,3-butadiene ligands containing substituents in the 2 and or 3 positions containing trihydrocarbylsiloxy groups.

52. (New) The compound of claim 47 where L is represented by one of the formulae:

$$R^{2}$$
 $A_{x}$ 
 $A_{x}$ 
 $A_{y}$ 
 $A_{z}$ 
 $A_{z$ 

where each E is, independently, a Group 15 element that is bonded to M, provided that at least one E is nitrogen; G is a Group 16 element that is bonded to M; A is a bridging group containing a Group 13-16 element and an atom within A may optionally be bonded to M; x is 0 or 1; R<sup>1</sup> is, independently, a bulky hydrocarbyl, substituted bulky hydrocarbyl, bulky halocarbyl, or substituted bulky halocarbyl; R<sup>2</sup> is, independently, hydrogen, or a hydrocarbyl, substituted hydrocarbyl, halocarbyl, or substituted halocarbyl provided that a substituted hydrocarbyl, substituted with trihydrocarbylsiloxy; R<sup>3</sup> is, independently, hydrogen, or a hydrocarbyl, substituted hydrocarbyl is not substituted with trihydrocarbylsiloxy, or R<sup>3</sup> is a substituted hydrocarbyl group containing a heteroatom or silicon atom directly bonded to G, E or the indicated carbon atom; R<sup>22</sup> is, independently, hydrogen, or a hydrocarbyl, substituted hydrocarbyl, halocarbyl, or substituted halocarbyl provided that a substituted hydrocarbyl, halocarbyl, or substituted halocarbyl provided that a substituted hydrocarbyl, halocarbyl, or substituted halocarbyl provided that a substituted hydrocarbyl is not substituted with trihydrocarbylsiloxy; and where

 $R^1$ ,  $R^2$  and/or  $R^3$  groups on the same atom, adjacent atoms or those separated by one additional atom may join together to form a substituted or unsubstituted, saturated, partially unsaturated or aromatic cyclic or polycyclic ring structure provided that for L1, both pair of  $R^1$  and  $R^2$  do not join to form a substituted or unsubstituted pyridine, pyrazine, pyrimidine or benzimidazole ring;

R<sup>22</sup> and R<sup>3</sup> may join together to form a substituted or unsubstituted, saturated, partially

unsaturated or aromatic heterocyclic ring structure provided that for L21 and L22, R<sup>1</sup> and R<sup>2</sup> do not join to form a substituted or unsubstituted pyridine, pyrazine, pyrimidine or benzimidazole ring; and

two R<sup>2</sup> bonded to the same atom together may form an -one (=O), a thione (=S), an - imine (=NR'''), or a -carbene (=CR'''<sub>2</sub>) group where R''' is independently, hydrogen, hydrocarbyl, substituted hydrocarbyl, halocarbyl or substituted halocarbyl and two or more R''' on the same carbon may join together to form a substituted or unsubstituted, saturated, partially unsaturated, or aromatic cyclic or polycyclic substituent.

53. (New) The compound of claim 47 where L is represented by the formulae L\*1 to L\*410 where:

R<sup>1</sup> is, independently, a bulky hydrocarbyl, substituted bulky hydrocarbyl, bulky halocarbyl, or substituted bulky halocarbyl; R<sup>2</sup> is, independently, hydrogen, or a hydrocarbyl, substituted hydrocarbyl, halocarbyl, or substituted halocarbyl provided that a substituted hydrocarbyl is not substituted with trihydrocarbylsiloxy; R<sup>3</sup> is, independently, hydrogen, or a hydrocarbyl, substituted hydrocarbyl, halocarbyl, or substituted halocarbyl provided that a substituted hydrocarbyl is not substituted with trihydrocarbylsiloxy, or R<sup>3</sup> is a substituted hydrocarbyl group containing a heteroatom or silicon atom directly bonded to G, E or the indicated carbon atom; R<sup>22</sup> is, independently, hydrogen, or a hydrocarbyl, substituted hydrocarbyl, halocarbyl, or substituted halocarbyl provided that a substituted hydrocarbyl is not substituted with trihydrocarbylsiloxy;

and where

R<sup>1</sup>, R<sup>2</sup> and/or R<sup>3</sup> groups on the same atom, adjacent atoms or those separated by one additional atom may join together to form a substituted or unsubstituted, saturated, partially unsaturated or aromatic cyclic or polycyclic ring structure provided that for L1, both pair of R<sup>1</sup> and R<sup>2</sup> do not join to form a substituted or unsubstituted pyridine, pyrazine, pyrimidine or benzimidazole ring;

 $R^{22}$  and  $R^3$  may join together to form a substituted or unsubstituted, saturated, partially unsaturated or aromatic heterocyclic ring structure provided that for L21 and L22,  $R^1$  and  $R^2$  do not join to form a substituted or unsubstituted pyridine, pyrazine, pyrimidine or

benzimidazole ring; and

two R<sup>2</sup> bonded to the same atom together may form an –one (=O), a thione (=S), an –imine (=NR'''), or a –carbene (=CR'''<sub>2</sub>) group where R''' is independently, hydrogen, hydrocarbyl, substituted hydrocarbyl, halocarbyl or substituted halocarbyl and two or more R''' on the same carbon may join together to form a substituted or unsubstituted, saturated, partially unsaturated, or aromatic cyclic or polycyclic substituent.

(New) The compound of claim 52, where R<sup>1</sup> is selected from the group consisting of: all 54. isomers and hydrocarbyl substituted isomers of propyl, butyl, pentyl, hexyl, heptyl, octyl, nonyl, decyl, undecyl, dodecyl, tridecyl, tetradecyl, pentadecyl, hexadecyl, heptadecyl, octadecyl, nonadecyl, eicosyl, heneicosyl, docosyl, tricosyl, tetracosyl, pentacosyl, hexacosyl, heptacosyl, octacosyl, nonacosyl, triacontyl, propenyl, butenyl, pentenyl, hexenyl, heptenyl, octenyl, nonenyl, decenyl, undecenyl, dodecenyl, tridecenyl, tetradecenyl, pentadecenyl, hexadecenyl, heptadecenyl, octadecenyl, nonadecenyl, eicosenyl, heneicosenyl, docosenyl, tricosenyl, tetracosenyl, pentacosenyl, hexacosenyl, heptacosenyl, octacosenyl, nonacosenyl, triacontenyl, propynyl, butynyl, pentynyl, hexynyl, heptynyl, octynyl, nonynyl, decynyl, undecynyl, dodecynyl, tridecynyl, tetradecynyl, pentadecynyl, hexadecynyl, heptadecynyl, octadecynyl, nonadecynyl, eicosynyl, heneicosynyl, docosynyl, tricosynyl, tetracosynyl, pentacosynyl, hexacosynyl, heptacosynyl, octacosynyl, nonacosynyl, and triacontynyl; perfluoropropyl, perfluorobutyl, perfluoropentyl, perfluorohexyl, perfluoroheptyl, perfluorooctyl, perfluorononyl, perfluorodecyl, perfluoroundecyl, perfluorododecyl, perfluorotridecyl, perfluorotetradecyl, perfluoropentadecyl, perfluorohexadecyl, perfluoroheptadecyl, perfluorooctadecyl, perfluorononadecyl, perfluoroeicosyl, perfluoroheneicosyl, perfluorodocosyl, perfluorotricosyl, perfluorotetracosyl, perfluoropentacosyl, perfluorohexacosyl, perfluoroheptacosyl, perfluorooctacosyl, perfluorononacosyl, perfluorotriacontyl, perfluorobutenyl, perfluorobutynyl, fluoropropyl, fluorobutyl, fluoropentyl, fluorohexyl, fluorohexyl, fluorooctyl, fluorononyl, fluorodecyl, fluoroundecyl, fluorododecyl, fluorotridecyl, fluorotetradecyl, fluoropentadecyl,

fluorohexadecyl, fluorohexadecyl, fluorooctadecyl, fluorononadecyl, fluoroeicosyl, fluoroheneicosyl, fluorodocosyl, fluorotricosyl, fluorotetracosyl, fluoropentacosyl, fluorohexacosyl, fluoroheptacosyl, fluorooctacosyl, fluorononacosyl, fluorotriacontyl, difluorobutyl, trifluorobutyl, tetrafluorobutyl, pentafluorobutyl, hexafluorobutyl, heptafluorobutyl, octafluorobutyl; methoxypropyl, methoxybutyl, methoxypentyl, methoxyhexyl, methoxyheptyl, methoxyoctyl, methoxynonyl, methoxydecyl, methoxyundecyl, methoxydodecyl, methoxytridecyl, methoxytetradecyl, methoxypentadecyl, methoxyhexadecyl, methoxyheptadecyl, methoxyoctadecyl, methoxynonadecyl, methoxyeicosyl, methoxyheneicosyl, methoxydocosyl, methoxytricosyl, methoxytetracosyl, methoxypentacosyl, methoxyhexacosyl, methoxyheptacosyl, methoxyoctacosyl, methoxynonacosyl, methoxytriacontyl, butoxypropyl, butoxybutyl, butoxypentyl, butoxyhexyl, butoxyheptyl, butoxyoctyl, butoxynonyl, butoxydecyl, butoxyundecyl, butoxydodecyl, butoxytridecyl, butoxytetradecyl, butoxypentadecyl, butoxyhexadecyl, butoxyheptadecyl, butoxyoctadecyl, butoxynonadecyl, butoxyeicosyl, butoxyheneicosyl, butoxydocosyl, butoxytricosyl, butoxytetracosyl, butoxypentacosyl, butoxyhexacosyl, butoxyheptacosyl, butoxyoctacosyl, butoxynonacosyl, butoxytriacontyl, dimethylaminopropyl, dimethylaminobutyl, dimethylaminopentyl, dimethylaminohexyl, dimethylaminoheptyl, dimethylaminooctyl, dimethylaminononyl, dimethylaminodecyl, dimethylaminoundecyl, dimethylaminododecyl, dimethylaminotridecyl, dimethylaminotetradecyl, dimethylaminopentadecyl, dimethylaminohexadecyl, dimethylaminoheptadecyl, dimethylaminooctadecyl, dimethylaminononadecyl, dimethylaminoeicosyl, dimethylaminoheneicosyl, dimethylaminodocosyl, dimethylaminotricosyl, dimethylaminotetracosyl, dimethylaminopentacosyl, dimethylaminohexacosyl, dimethylaminoheptacosyl, dimethylaminooctacosyl, dimethylaminononacosyl, dimethylaminotriacontyl, trimethylsilylpropyl, trimethylsilylbutyl, trimethylsilylpentyl, trimethylsilylhexyl, trimethylsilylheptyl, trimethylsilyloctyl, trimethylsilylnonyl, trimethylsilyldecyl, trimethylsilylundecyl, trimethylsilyldodecyl, trimethylsilyltridecyl, trimethylsilyltetradecyl, trimethylsilylpentadecyl, trimethylsilylhexadecyl, trimethylsilylheptadecyl, trimethylsilyloctadecyl, trimethylsilylnonadecyl,

trimethylsilyleicosyl, trimethylsilylheneicosyl, trimethylsilyldocosyl, trimethylsilyltricosyl, trimethylsilyltetracosyl, trimethylsilylpentacosyl, trimethylsilylhexacosyl, trimethylsilylheptacosyl, trimethylsilyloctacosyl, trimethylsilylnonacosyl, trimethylsilyltriacontyl, methylphenyl, dimethylphenyl, trimethylphenyl, tetramethylphenyl, pentamethylphenyl ethylphenyl, diethylphenyl, triethylphenyl, tetraethylphenyl, pentaethylphenyl, propylphenyl, dipropylphenyl, tripropylphenyl, tetrapropylphenyl, pentapropylphenyl butylphenyl, dibutylphenyl, tributylphenyl, tetrabutylphenyl, pentabutylphenyl, hexylphenyl, dihexylphenyl, trihexylphenyl, tetrahexylphenyl, pentahexylphenyl, dimethylethylphenyl, dimethylpropylphenyl, dimethylbutylphenyl, dimethylpentylphenyl, dimethylhexylphenyl, diethylmethylphenyl, diethylpropylphenyl, diethylbutylphenyl, diethylpentylphenyl, diethylhexylphenyl, dipropylmethylphenyl, dipropylethylphenyl, dipropylbutylphenyl, dipropylpentylphenyl, dipropylhexylphenyl, dibutylmethylphenyl, dibutylethylphenyl, dibutylpropylphenyl, dibutylpentylphenyl, dibutylhexylphenyl, methylethylphenyl, methylpropylphenyl, methylbutylphenyl, methylpentylphenyl, methylhexylphenyl, ethylpropylphenyl, ethylbutylphenyl, ethylpentylphenyl, ethylphenyl, propylbutylphenyl, propylpentylphenyl, propylhexylphenyl, butylpentylphenyl, butylhexylphenyl, methoxyphenyl, ethoxyphenyl, propoxyphenyl, butoxyphenyl, pentoxyphenyl, hexoxyphenyl, dimethoxyphenyl, phenoxyphenyl, methylmethoxyphenyl, dimethylaminophenyl, dipropylaminophenyl, bis(dimethylamino)phenyl, methyl(dimethylamino)phenyl, trimethylsilylphenyl, trimethylgermylphenyl, trifluoromethylphenyl, bis(triflouromethyl)phenyl, trifluoromethoxyphenyl, halophenyl, dihalophenyl, trihalophenyl, tetrahalophenyl, and pentahalophenyl, halomethylphenyl, dihalomethylphenyl, trihalomethylphenyl, tetrahalomethylphenyl, haloethlyphenyl, dihaloethylphenyl, trihaloethylphenyl, tetrahaloethylphenyl, halopropylphenyl, dihalopropylphenyl, trihalopropylphenyl, tetrahalopropylphenyl, halobutylphenyl, dihalobutylphenyl, trihalobutylphenyl, tetrahalobutylphenyl, dihalodimethylphenyl, dihalo(trifluoromethyl)phenyl (where halo is, independently, fluoro, chloro, bromo and iodo), methylbenzyl, dimethylbenzyl, trimethylbenzyl, tetramethylbenzyl, pentamethylbenzyl ethylbenzyl, diethylbenzyl, triethylbenzyl, tetraethylbenzyl,

pentaethylbenzyl, propylbenzyl, dipropylbenzyl, tripropylbenzyl, tetrapropylbenzyl, pentapropylbenzyl butylbenzyl, dibutylbenzyl, tributylbenzyl, tetrabutylbenzyl, pentabutylbenzyl, hexylbenzyl, dihexylbenzyl, trihexylbenzyl, tetrahexylbenzyl, pentahexylbenzyl, dimethylethylbenzyl, dimethylpropylbenzyl, dimethylbutylbenzyl, dimethylpentylbenzyl, dimethylhexylbenzyl, diethylmethylbenzyl, diethylpropylbenzyl, diethylbutylbenzyl, diethylpentylbenzyl, diethylbenzyl, dipropylmethylbenzyl, dipropylethylbenzyl, dipropylbutylbenzyl, dipropylpentylbenzyl, dipropylhexylbenzyl, dibutylmethylbenzyl, dibutylethylbenzyl, dibutylpropylbenzyl, dibutylpentylbenzyl, dibutylhexylbenzyl, methylethylbenzyl, methylpropylbenzyl, methylbutylbenzyl, methylpentylbenzyl, methylhexylbenzyl, ethylpropylbenzyl, ethylbutylbenzyl, ethylpentylbenzyl, ethylhexylbenzyl, propylbutylbenzyl, propylpentylbenzyl, propylhexylbenzyl, butylpentylbenzyl, butylhexylbenzyl, methoxybenzyl, ethoxybenzyl, propoxybenzyl, butoxybenzyl, pentoxybenzyl, hexoxybenzyl, dimethoxybenzyl, phenoxybenzyl, methylmethoxybenzyl, dimethylaminobenzyl, dipropylaminobenzyl, bis(dimethylamino)benzyl, methyl(dimethylamino)benzyl, trifluoromethylbenzyl, bis(trifluoromethylbenzyl), trifluoromethyoxybenzyl, trimethylsilylbenzyl, bis(trimethylsilyl)benzyl, trimethylgermylbenzyl, diphenylmethyl, trimethylsilyl, trimethylgermyl, trimethylstannyl, trimethylplumbyl, triethylsilyl, triethylgermyl, dimethylethylsilyl, dimethylethylgermyl, diethylmethylsilyl, diethylmethylgermyl, triphenylsilyl, triphenylgermyl, triphenoxysilyl, triphenoxygermyl, trimethoxysilyl, trimethoxygermyl, triethoxysilyl, triethoxygermyl, and all isomers of tripropylsilyl, tripropylgermyl, tributylsilyl, tributylgermyl, tripropoxysilyl, tripropoxygermyl, tributoxysilyl, tributoxygermyl, tris(trifluormethyl)silyl, bis(perfluoromethyl)methylsilyl, pyrenyl, aceanthrylenyl, acenaphthylene, acephenanthrylenyl, azulenyl biphenylenyl, chrysenyl, coronenyl, fluoranthenyl, fluorenyl, heptacenyl, heptalenyl, heptaphenyl, hexacenyl, hexaphenyl, as-indacenyl, s-indecenyl, indenyl, ovalenyl, pentacenyl, pentalenyl, pentaphenyl, perylenyl, phenalenyl, phenanthrenyl, picenyl, pleiadenyl, pyranhrenyl, rubicenyl, naphthacenyl, tetraphenylenyl, trinaphthylenyl, triphenylenyl, hexahelicenyl, naphthyl, anthracenyl, dibenza[a,b]anthracenyl, indanyl, acenaphthenyl, cholanthrenyl, aceanthrenyl, acephenanthrenyl, 1,2,3,4-tetrahydronapthalene, fullerenyl,

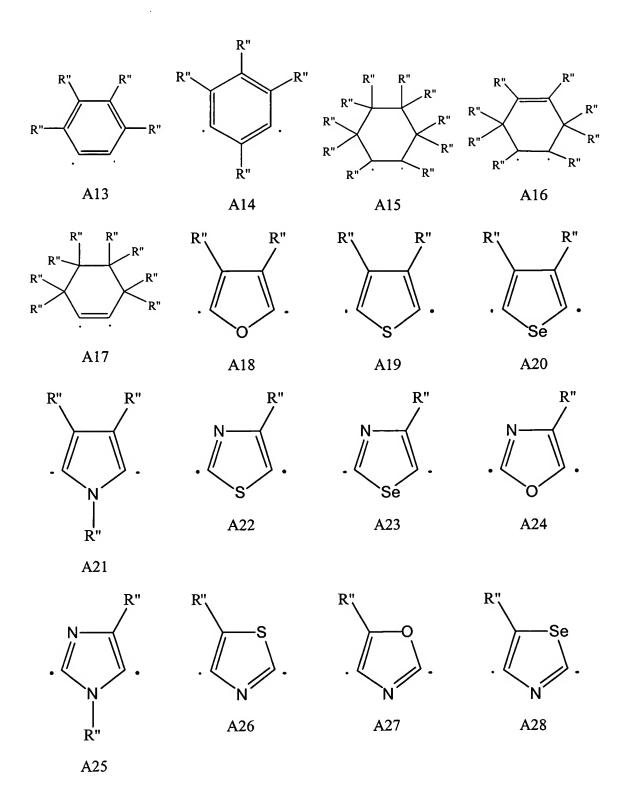
cyclopropyl, cyclobutyl, cyclopentyl, cyclohexyl, cyclohexenyl, cycloheptyl, cycloctyl, cyclononyl, cyclodecyl, cycloundecyl, and cyclododecyl, dimethylcyclohexyl, norbornyl, norbornenyl, adamantyl, cubanyl, prismanyl, spiro[4,5]decanyl, biphenyl, bicyclopentyl, terphenyl, quatercyclohexanyl, binaphthyl, binorbornyl, phenyl-terphenyl, 1,1diphenylmethano, 1,1-dinapthyletheno, acridarsinyl, acridinyl, acridophosphinyl, 1Hacrindolinyl, anthrazinyl, anthyridinyl, arsanthridinyl, arsindolyl, arsindolizinyl, arsinolinyl, arsinolizinyl, benzofuranyl, carbazolyl, β-carbolinyl, chromenyl, thiochromenyl, cinnolinyl, furanyl, imidazolyl, indazolyl, indolyl, indolizinyl, isoarsindolyl, isoarsinolinyl, isobenzofuranyl, isochromenyl, isothiochromenyl, isoindolyl, isophosphindolyl, isophosphinolinyl, isoquinolinyl, isothiazolyl, isoxazolyl, naphthyridinyl, oxazolyl, perimidinyl, phenanthrazinyl, phenanthridinyl, phenanthrolinyl, phenazinyl, phosphanthridinyl, phosphindolyl, phosphindolizinyl, phosphinolizinyl, phthalazinyl, pteridinyl, phthaloperinyl, purinyl, pyranyl, thiopyranal, pyrazinyl, pyrazolyl, pyridazinyl, pyridinyl, pyrindinyl, pyrimidinyl, pyrrolyl, pyrrolizinyl, quinazolinyl, quindolinyl, 1H-quinindolinyl, quinolinyl, quinolizinyl, quinoxalinyl, selenophenyl, thebenidinyl, thiazolyl, thiophenyl, triphenodioxazinyl, triphenodithiazinyl, xanthenyl, chromanyl, thiochromanyl, imidazolidinyl, indolinyl, isochromanyl, isothiochromanyl, isoindolinyl, morpholinyl, piperazinyl, piperidinyl, pyrozolidinyl, pyrrolidinyl, quinuclidinyl, dimethylacridarsinyl, dimethylacridinyl, dimethylacridophosphinyl, dimethyl-1H-acrindolinyl, dimethylanthrazinyl, dimethylanthyridinyl, dimethylarsanthridinyl, dimethylarsindolyl, dimethylarsindolizinyl, dimethylarsinolinyl, dimethylarsinolizinyl, dibutylbenzofuranyl, dibutylcarbazolyl, dibutyl-β-carbolinyl, dibutylchromenyl, dibutylthiochromenyl, butylcinnolinyl, dibutylfuranyl, dimethylimidazolyl, dimethylindazolyl, dipropylindolyl, dipropylindolizinyl, dimethylisoarsindolyl, methylisoarsinolinyl, dimethylisobenzofuranyl, diphenylisochromenyl, dibutylisothiochromenyl, phenylisoindolyl, butylisophosphindolyl, dibutylisophosphinolinyl, dimethylisoquinolinyl, methylisothiazolyl, butylisoxazolyl, butylnaphthyridinyl, dimethyloxazolyl, methylphenylperimidinyl, tetrabutylphenanthrazinyl, propylphenanthridinyl, dibutylphenanthrolinyl, tetramethylphenazinyl,

butylphosphanthridinyl, phenylphosphindolyl, dimethylphosphindolizinyl, methylphosphinolizinyl, dibutylphthalazinyl, trimethylpteridinyl, methylphthaloperinyl, dimethylpurinyl, dibutylpyranyl, dibutylthiopyranal, trimethylpyrazinyl, phenylpyrazolyl, dipropylpyridazinyl, dimethylpyridinyl, methylpropylpyrindinyl, triethylpyrimidinyl, dibutylpyrrolyl, diethylpyrrolizinyl, dibutylquinazolinyl, dibutylquindolinyl, dibutyl-1*H*-quinindolinyl, dimethylquinolinyl, propylquinolizinyl, methylquinoxalinyl, methylbutylselenophenyl, methylthebenidinyl, dimethylthiazolyl, trimethylthiophenyl, dibutyltriphenodioxazinyl, dibutyltriphenodithiazinyl, dibutylxanthenyl, trimethylchromanyl, dimethylthiochromanyl, dimethylimidazolidinyl, dimethylindolinyl, dibutylisochromanyl, dibutylisothiochromanyl, phenylisoindolinyl, dibutylmorpholinyl, dimethylpiperazinyl, dimethylpiperidinyl, dimethylpyrozolidinyl, dimethylpyrrolidinyl, bipyridyl, pyrido[2,1,6-de]quinolizinyl, hexamethylquinuclidinyl, 5,7-dioxa-6-phosphadibenzo[a,c]cycloheptene-6-oxide, and 9-oxa-10-phosphaphenanthrene-10-oxide.

55. (New) The compound of claim 52 where A is represented by the following formulae: R'<sub>2</sub>C, R'<sub>2</sub>Si, R'<sub>2</sub>Ge, R'<sub>2</sub>CCR'<sub>2</sub>, R'<sub>2</sub>CCR'<sub>2</sub>CR'<sub>2</sub>, R'<sub>2</sub>CCR'<sub>2</sub>CR'<sub>2</sub>CR'<sub>2</sub>, R'C=CR', R'C=CR'CR'2, R'2CCR'=CR'CR'2, R'C=CR'CR'=CR', R'C=CR'CR'2CR'2, R'2CSiR'2, R'2SiSiR'2, R'2CSiR'2CR'2, R'2SiCR'2SiR'2, R'C=CR'SiR'2, R'2CGeR'2, R'2GeGeR'2, R'2CGeR'2CR'2, R'2GeCR'2GeR'2, R'2SiGeR'2, R'C=CR'GeR'2, R'B, R'2C-BR', R'2C-BR'-CR'<sub>2</sub>, R'N, R'P, O, S, Se, C(=O)C(=O), R'<sub>2</sub>CC(=O), R'<sub>2</sub>CC(=O)CR'<sub>2</sub>, R'<sub>2</sub>C-O-CR'<sub>2</sub>, R'<sub>2</sub>CR'<sub>2</sub>C-O-CR'<sub>2</sub>CR'<sub>2</sub>, R'<sub>2</sub>C-O-CR'<sub>2</sub>CR'<sub>2</sub>, R'<sub>2</sub>C-O-CR'=CR', R'<sub>2</sub>C-S-CR'<sub>2</sub>, R'2CR'2C-S-CR'2CR'2, R'2C-S-CR'2CR'2, R'2C-S-CR'=CR', R'2C-Se-CR'2, R'2CR'2C-Se-CR'2CR'2, R'2C-Se-CR'2CR'2, R'2C-Se-CR'=CR', R'2C-N=CR', R'2C-N=CR NR'-CR'<sub>2</sub>, R'<sub>2</sub>C-NR'-CR'<sub>2</sub>CR'<sub>2</sub>, R'<sub>2</sub>C-NR'-CR'=CR', R'<sub>2</sub>CR'<sub>2</sub>C-NR'-CR'<sub>2</sub>CR'<sub>2</sub>, R'<sub>2</sub>C-P=CR', and R'<sub>2</sub>C-PR'-CR'<sub>2</sub> where each R' is, independently, hydrogen, hydrocarbyl, substituted hydrocarbyl, halocarbyl or substituted halocarbyl provided that a substituted hydrocarbyl is not substituted with trihydrocarbylsiloxy, and two or more R' on the same carbon or adjacent R' may join together to form a substituted or unsubstituted, saturated, partially unsaturated, or aromatic cyclic or polycyclic substituent.

56. (New) The compound of claim 52 where A is represented by the formulae:

$$R''$$
 $R''$ 
 $R''$ 



$$R''$$
 $R''$ 
 $R''$ 

where R" is, independently, hydrogen, hydrocarbyl, substituted hydrocarbyl, halocarbyl or substituted halocarbyl provided that a substituted hydrocarbyl is not substituted with trihydrocarbylsiloxy, and two or more R" on the same carbon or adjacent R" may join together to form a substituted or unsubstituted, saturated, partially unsaturated, or aromatic cyclic or polycyclic substituent and where the bonding points are designated by the dots.

## 57. (New) The compound of claim 52 where R<sup>1</sup> is represented by the formulae:

$$R^{13}$$
 $R^{13}$ 
 $R^{11}$ 
 $R^{13}$ 
 $R^{13}$ 
 $R^{12}$ 
 $R^{13}$ 
 $R^{12}$ 
 $R^{13}$ 
 $R^{13}$ 
 $R^{11}$ 
 $R^{13}$ 
 $R^{13}$ 
 $R^{11}$ 
 $R^{12}$ 
 $R^{13}$ 
 $R^{12}$ 
 $R^{13}$ 
 $R^{14}$ 
 $R^{15}$ 
 $R^{15}$ 

where R<sup>10</sup>, R<sup>11</sup>, R<sup>12</sup>, and R<sup>13</sup> are, independently, hydrogen, hydrocarbyl radicals, substituted hydrocarbyl radicals, halocarbyl radicals, substituted halocarbyl radicals, silylcarbyl radicals or polar radicals and

R<sup>10</sup>, R<sup>11</sup>, R<sup>12</sup>, and/or R<sup>13</sup> on the same atom or adjacent atoms may join together to form a substituted or unsubstituted saturated, partially unsaturated or aromatic cyclic or polycyclic ring structure.

(New) The compound of claim 57 wherein R<sup>10</sup>, R<sup>11</sup>, R<sup>12</sup>, and R<sup>13</sup> are, independently selected from the group consisting of: hydrogen, methyl, ethyl, ethenyl, ethynyl and all isomers of propyl, butyl, pentyl, hexyl, heptyl, octyl, nonyl, decyl, undecyl, dodecyl, tridecyl, tetradecyl, pentadecyl, hexadecyl, heptadecyl, octadecyl, nonadecyl, eicosyl, heneicosyl, docosyl, tricosyl, tetracosyl, pentacosyl, hexacosyl, heptacosyl, octacosyl, nonacosyl, triacontyl, propenyl, butenyl, pentenyl, hexenyl, heptenyl, octenyl, nonenyl, decenyl, undecenyl, dodecenyl, tridecenyl, tetradecenyl, pentadecenyl, hexadecenyl, heptadecenyl, octadecenyl, nonadecenyl, eicosenyl, heneicosenyl, docosenyl, tricosenyl, tetracosenyl, pentacosenyl, nonacosenyl, triacontenyl, propynyl, butynyl, pentynyl, hexynyl, heptynyl, octynyl, nonynyl, decynyl, undecynyl, dodecynyl, tridecynyl, tetradecynyl, pentadecynyl, hexadecynyl, heptadecynyl, heptadecynyl,

octadecynyl, nonadecynyl, eicosynyl, heneicosynyl, docosynyl, tricosynyl, tetracosynyl, pentacosynyl, hexacosynyl, heptacosynyl, octacosynyl, nonacosynyl, triacontynyl, perfluoropropyl, perfluorobutyl, perfluoropentyl, perfluorohexyl, perfluorohexyl, perfluorooctyl, perfluorononyl, perfluorodecyl, perfluoroundecyl, perfluorododecyl, perfluorotridecyl, perfluorotetradecyl, perfluoropentadecyl, perfluorohexadecyl, perfluoroheptadecyl, perfluorooctadecyl, perfluorononadecyl, perfluoroeicosyl, perfluoroheneicosyl, perfluorodocosyl, perfluorotricosyl, perfluorotetracosyl, perfluoropentacosyl, perfluorohexacosyl, perfluorohexacosyl, perfluoroctacosyl, perfluorononacosyl, perfluorotriacontyl, perfluorobutenyl, perfluorobutynyl, fluoropropyl, fluorobutyl, fluoropentyl, fluorohexyl, fluorohexyl, fluorooctyl, fluorononyl, fluorodecyl, fluoroundecyl, fluorododecyl, fluorotridecyl, fluorotetradecyl, fluoropentadecyl, fluorohexadecyl, fluoroheptadecyl, fluorooctadecyl, fluorononadecyl, fluoroeicosyl, fluoroheneicosyl, fluorodocosyl, fluorotricosyl, fluorotetracosyl, fluoropentacosyl, fluorohexacosyl, fluorohexacosyl, fluorooctacosyl, fluorononacosyl, fluorotriacontyl, difluorobutyl, trifluorobutyl, tetrafluorobutyl, pentafluorobutyl, hexafluorobutyl, heptafluorobutyl, octafluorobutyl, methoxypropyl, methoxybutyl, methoxypentyl, methoxyhexyl, methoxyheptyl, methoxyoctyl, methoxynonyl, methoxydecyl, methoxyundecyl, methoxydodecyl, methoxytridecyl, methoxytetradecyl, methoxypentadecyl, methoxyhexadecyl, methoxyheptadecyl, methoxyoctadecyl, methoxynonadecyl, methoxyeicosyl, methoxyheneicosyl, methoxydocosyl, methoxytricosyl, methoxytetracosyl, methoxypentacosyl, methoxytexacosyl, methoxyheptacosyl, methoxyoctacosyl, methoxynonacosyl, methoxytriacontyl, butoxypropyl, butoxybutyl, butoxypentyl, butoxyhexyl, butoxyheptyl, butoxyoctyl, butoxynonyl, butoxydecyl, butoxyundecyl, butoxydodecyl, butoxytridecyl, butoxytetradecyl, butoxypentadecyl, butoxyhexadecyl, butoxyheptadecyl, butoxyoctadecyl, butoxynonadecyl, butoxyeicosyl, butoxyheneicosyl, butoxydocosyl, butoxytricosyl, butoxytetracosyl, butoxypentacosyl, butoxyhexacosyl, butoxyheptacosyl, butoxyoctacosyl, butoxynonacosyl, butoxytriacontyl, dimethylaminopropyl, dimethylaminobutyl, dimethylaminopentyl, dimethylaminohexyl, dimethylaminoheptyl, dimethylaminooctyl, dimethylaminononyl, dimethylaminodecyl, dimethylaminoundecyl,

dimethylaminododecyl, dimethylaminotridecyl, dimethylaminotetradecyl, dimethylaminopentadecyl, dimethylaminohexadecyl, dimethylaminoheptadecyl, dimethylaminooctadecyl, dimethylaminononadecyl, dimethylaminoeicosyl, dimethylaminoheneicosyl, dimethylaminodocosyl, dimethylaminotricosyl, dimethylaminotetracosyl, dimethylaminopentacosyl, dimethylaminohexacosyl, dimethylaminoheptacosyl, dimethylaminooctacosyl, dimethylaminononacosyl, dimethylaminotriacontyl, trimethylsilylpropyl, trimethylsilylbutyl, trimethylsilylpentyl, trimethylsilylhexyl, trimethylsilylheptyl, trimethylsilyloctyl, trimethylsilylnonyl, trimethylsilyldecyl, trimethylsilylundecyl, trimethylsilyldodecyl, trimethylsilyltridecyl, trimethylsilyltetradecyl, trimethylsilylpentadecyl, trimethylsilylhexadecyl, trimethylsilylheptadecyl, trimethylsilyloctadecyl, trimethylsilylnonadecyl, trimethylsilyleicosyl, trimethylsilylheneicosyl, trimethylsilyldocosyl, trimethylsilyltricosyl, trimethylsilyltetracosyl, trimethylsilylpentacosyl, trimethylsilylhexacosyl, trimethylsilylheptacosyl, trimethylsilyloctacosyl, trimethylsilylnonacosyl, trimethylsilyltriacontyl, phenyl, methylphenyl, dimethylphenyl, trimethylphenyl, tetramethylphenyl, pentamethylphenyl ethylphenyl, diethylphenyl, triethylphenyl, tetraethylphenyl, pentaethylphenyl, propylphenyl, dipropylphenyl, tripropylphenyl, tetrapropylphenyl, pentapropylphenyl butylphenyl, dibutylphenyl, tributylphenyl, tetrabutylphenyl, pentabutylphenyl, hexylphenyl, dihexylphenyl, trihexylphenyl, tetrahexylphenyl, pentahexylphenyl, dimethylethylphenyl, dimethylpropylphenyl, dimethylbutylphenyl, dimethylpentylphenyl, dimethylhexylphenyl, diethylmethylphenyl, diethylpropylphenyl, diethylbutylphenyl, diethylpentylphenyl, diethylhexylphenyl, dipropylmethylphenyl, dipropylethylphenyl, dipropylbutylphenyl, dipropylpentylphenyl, dipropylhexylphenyl, dibutylmethylphenyl, dibutylethylphenyl, dibutylpropylphenyl, dibutylpentylphenyl, dibutylhexylphenyl, methylethylphenyl, methylpropylphenyl, methylbutylphenyl, methylpentylphenyl, methylpenyl, methylpenyl, ethylpropylphenyl, ethylbutylphenyl, ethylpentylphenyl, ethylhexylphenyl, propylbutylphenyl, propylpentylphenyl, propylhexylphenyl, butylpentylphenyl, butylhexylphenyl, trimethylsilylphenyl, trimethylgermylphenyl, trifluoromethylphenyl, bis(triflouromethyl)phenyl, halophenyl, dihalophenyl, trihalophenyl, tetrahalophenyl,

pentahalophenyl; halomethylphenyl, dihalomethylphenyl, trihalomethylphenyl, tetrahalomethylphenyl, haloethlyphenyl, dihaloethylphenyl, trihaloethylphenyl, tetrahaloethylphenyl, halopropylphenyl, dihalopropylphenyl, trihalopropylphenyl, tetrahalopropylphenyl, halobutylphenyl, dihalobutylphenyl, trihalobutylphenyl, tetrahalobutylphenyl, dihalodimethylphenyl, dihalo(trifluoromethyl)phenyl (where halo is, independently, fluoro, chloro, bromo and iodo), benzyl, methylbenzyl, dimethylbenzyl, trimethylbenzyl, tetramethylbenzyl, pentamethylbenzyl ethylbenzyl, diethylbenzyl, triethylbenzyl, tetraethylbenzyl, pentaethylbenzyl, propylbenzyl, dipropylbenzyl, tripropylbenzyl, tetrapropylbenzyl, pentapropylbenzyl butylbenzyl, dibutylbenzyl, tributylbenzyl, tetrabutylbenzyl, pentabutylbenzyl, hexylbenzyl, dihexylbenzyl, trihexylbenzyl, tetrahexylbenzyl, pentahexylbenzyl, dimethylethylbenzyl, dimethylpropylbenzyl, dimethylbutylbenzyl, dimethylpentylbenzyl, dimethylbenzyl, diethylmethylbenzyl, diethylpropylbenzyl, diethylbutylbenzyl, diethylpentylbenzyl, diethylhexylbenzyl, dipropylmethylbenzyl, dipropylethylbenzyl, dipropylbutylbenzyl, dipropylpentylbenzyl, dipropylhexylbenzyl, dibutylmethylbenzyl, dibutylethylbenzyl, dibutylpropylbenzyl, dibutylpentylbenzyl, dibutylhexylbenzyl, methylethylbenzyl, methylpropylbenzyl, methylbutylbenzyl, methylpentylbenzyl, methylhexylbenzyl, ethylpropylbenzyl, ethylbutylbenzyl, ethylpentylbenzyl, ethylhexylbenzyl, propylbutylbenzyl, propylpentylbenzyl, propylhexylbenzyl, butylpentylbenzyl, butylhexylbenzyl, trimethylsilylbenzyl, bis(trimethylsilyl)benzyl, trimethylgermylbenzyl, diphenylmethyl, trimethylsilyl, trimethylgermyl, trimethylstannyl, trimethylplumbyl, triethylsilyl, triethylgermyl, dimethylethylsilyl, dimethylethylgermyl, diethylmethylsilyl, diethylmethylgermyl, triphenylsilyl, triphenylgermyl, tripropylsilyl, tripropylgermyl, tributylsilyl, tributylgermyl, tris(trifluormethyl)silyl, bis(perfluoromethyl)methylsilyl, pyrenyl, aceanthrylenyl, acenaphthylene, acephenanthrylenyl, azulenyl biphenylenyl, chrysenyl, coronenyl, fluoranthenyl, fluorenyl, heptacenyl, heptalenyl, heptaphenyl, hexacenyl, hexaphenyl, as-indacenyl, s-indecenyl, indenyl, ovalenyl, pentacenyl, pentalenyl, pentaphenyl, perylenyl, phenalenyl, phenanthrenyl, picenyl, pleiadenyl, pyranhrenyl, rubicenyl, naphthacenyl, tetraphenylenyl, trinaphthylenyl, triphenylenyl, hexahelicenyl, naphthyl, anthracenyl, dibenza[a,b]anthracenyl, indanyl, acenaphthenyl,

cholanthrenyl, aceanthrenyl, acephenanthrenyl, 1,2,3,4-tetrahydronapthalene, fullerenyl, cyclopropyl, cyclobutyl, cyclopentyl, cyclohexyl, cyclohexenyl, cyclohextyl, cyclohextyl, cyclohextyl, cyclononyl, cyclodecyl, cycloundecyl, and cyclododecyl, dimethylcyclohexyl, norbornyl, norbornenyl, adamantyl, cubanyl, prismanyl, spiro[4,5]decanyl, biphenyl, bicyclopentyl, terphenyl, quatercyclohexanyl, binaphthyl, binorbornyl, phenyl-terphenyl, 1,1diphenylmethano, 1,1-dinapthyletheno, acridarsinyl, acridinyl, acridophosphinyl, 1Hacrindolinyl, anthrazinyl, anthyridinyl, arsanthridinyl, arsindolyl, arsindolizinyl, arsinolinyl, arsinolizinyl, benzofuranyl, carbazolyl, β-carbolinyl, chromenyl, thiochromenyl, cinnolinyl, furanyl, imidazolyl, indazolyl, indolyl, indolizinyl, isoarsindolyl, isoarsinolinyl, isobenzofuranyl, isochromenyl, isothiochromenyl, isoindolyl, isophosphindolyl, isophosphinolinyl, isoquinolinyl, isothiazolyl, isoxazolyl, naphthyridinyl, oxazolyl, perimidinyl, phenanthrazinyl, phenanthridinyl, phenanthrolinyl, phenazinyl, phosphanthridinyl, phosphindolyl, phosphindolizinyl, phosphinolizinyl, phthalazinyl, pteridinyl, phthaloperinyl, purinyl, pyranyl, thiopyranal, pyrazinyl, pyrazolyl, pyridazinyl, pyridinyl, pyrindinyl, pyrimidinyl, pyrrolyl, pyrrolizinyl, quinazolinyl, quindolinyl, 1H-quinindolinyl, quinolinyl, quinolizinyl, quinoxalinyl, selenophenyl, thebenidinyl, thiazolyl, thiophenyl, triphenodioxazinyl, triphenodithiazinyl, xanthenyl, chromanyl, thiochromanyl, imidazolidinyl, indolinyl, isochromanyl, isothiochromanyl, isoindolinyl, morpholinyl, piperazinyl, piperidinyl, pyrozolidinyl, pyrrolidinyl, quinuclidinyl, dimethylacridarsinyl, dimethylacridinyl, dimethylacridophosphinyl, dimethyl-1H-acrindolinyl, dimethylanthrazinyl, dimethylanthyridinyl, dimethylarsanthridinyl, dimethylarsindolyl, dimethylarsindolizinyl, dimethylarsinolinyl, dimethylarsinolizinyl, dibutylbenzofuranyl, dibutylcarbazolyl, dibutyl-\beta-carbolinyl, dibutylchromenyl, dibutylthiochromenyl, butylcinnolinyl, dibutylfuranyl, dimethylimidazolyl, dimethylindazolyl, dipropylindolyl, dipropylindolizinyl, dimethylisoarsindolyl, methylisoarsinolinyl, dimethylisobenzofuranyl, diphenylisochromenyl, dibutylisothiochromenyl, phenylisoindolyl, butylisophosphindolyl, dibutylisophosphinolinyl, dimethylisoquinolinyl, methylisothiazolyl, butylisoxazolyl, butylnaphthyridinyl, dimethyloxazolyl, methylphenylperimidinyl, tetrabutylphenanthrazinyl,

propylphenanthridinyl, dibutylphenanthrolinyl, tetramethylphenazinyl, butylphosphanthridinyl, phenylphosphindolyl, dimethylphosphindolizinyl, methylphosphinolizinyl, dibutylphthalazinyl, trimethylpteridinyl, methylphthaloperinyl, dimethylpurinyl, dibutylpyranyl, dibutylthiopyranal, trimethylpyrazinyl, phenylpyrazolyl, dipropylpyridazinyl, dimethylpyridinyl, methylpropylpyrindinyl, triethylpyrimidinyl, dibutylpyrrolyl, diethylpyrrolizinyl, dibutylquinazolinyl, dibutylquindolinyl, dibutyl-1Hquinindolinyl, dimethylquinolinyl, propylquinolizinyl, methylquinoxalinyl, methylbutylselenophenyl, methylthebenidinyl, dimethylthiazolyl, trimethylthiophenyl, dibutyltriphenodioxazinyl, dibutyltriphenodithiazinyl, dibutylxanthenyl, trimethylchromanyl, dimethylthiochromanyl, dimethylimidazolidinyl, dimethylindolinyl, dibutylisochromanyl, dibutylisothiochromanyl, phenylisoindolinyl, dibutylmorpholinyl, dimethylpiperazinyl, dimethylpiperidinyl, dimethylpyrozolidinyl, dimethylpyrrolidinyl, bipyridyl, pyrido[2,1,6-de]quinolizinyl, hexamethylquinuclidinyl, 5,7-dioxa-6phosphadibenzo[a,c]cycloheptene-6-oxide, 9-oxa-10-phosphaphenanthrene-10-oxide, methoxy, ethoxy, propoxy, butoxy, pentoxy, phenoxy, dimethylphenoxy, dimethylamino, diethylamino, dipropylamino, methylethylamino, methylpropylamino, ethylpropylamino, diphenylamino, methylphenylamino, and ethylphenylamino.

- 59. (New) The compound of claim 57 where at least one R<sup>11</sup> and/or at least one R<sup>12</sup> are independently methyl, ethyl, *n*-propyl, *iso*-propyl, *n*-butyl, *sec*-butyl, *iso*-butyl, *tert*-butyl, phenyl, napthyl, diphenylmethyl, or trifluoromethyl.
- 60. (New) The compound of claim 47 wherein X is represented by the formulae:

$$R^a$$
 $R^b$ 
 $R^c$ 

where each O is bonded to M, and where R<sup>a</sup>, R<sup>b</sup>, R<sup>c</sup> and R<sup>d</sup> are, independently, selected from the group consisting of hydrogen, methyl, ethyl, ethenyl, ethynyl, and all isomers of

propyl, butyl, pentyl, hexyl, heptyl, octyl, nonyl, decyl, undecyl, dodecyl, tridecyl, tetradecyl, pentadecyl, hexadecyl, heptadecyl, octadecyl, nonadecyl, eicosyl, heneicosyl, docosyl, tricosyl, tetracosyl, pentacosyl, hexacosyl, heptacosyl, octacosyl, nonacosyl, triacontyl, propenyl, butenyl, pentenyl, hexenyl, heptenyl, octenyl, nonenyl, decenyl, undecenyl, dodecenyl, tridecenyl, tetradecenyl, pentadecenyl, hexadecenyl, heptadecenyl, octadecenyl, nonadecenyl, eicosenyl, heneicosenyl, docosenyl, tricosenyl, tetracosenyl, pentacosenyl, hexacosenyl, heptacosenyl, octacosenyl, nonacosenyl, triacontenyl, propynyl, butynyl, pentynyl, hexynyl, heptynyl, octynyl, nonynyl, decynyl, undecynyl, tetradecynyl, pentadecynyl, hexadecynyl, heptadecynyl, dodecynyl, tridecynyl, octadecynyl, nonadecynyl, eicosynyl, heneicosynyl, docosynyl, tricosynyl, tetracosynyl, pentacosynyl, hexacosynyl, heptacosynyl, octacosynyl, nonacosynyl, and triacontynyl, phenyl, napthyl, anthracenyl, pyrenyl, biphenyl, benzyl, cyclopropyl, cyclobutyl, cyclopentyl, cyclohexyl, cycloheptyl, cyclooctyl, cyclononyl, cyclodecyl, cycloundecyl, cyclododecyl, fluoro, chloro, bromo, iodo, trimethylsilyl, triethylsilyl, tripropylsilyl, dimethylethylsilyl, diethylmethylsilyl, trimethoxysilyl, tirethoxysilyl, tripropoxysilyl, methoxy, ethoxy, propoxy, butoxy, phenoxy, or a nitro, carboxylic acid, ester, ketone (excluding 1,2-diketones) or aldehyde group; and optionally, Ra, Rb, Rc or Rd can connect to form substituted or unsubstituted, saturated, partially unsaturated or aromatic ring structures, provided at least one of R<sup>a</sup>, R<sup>b</sup>, R<sup>c</sup> and R<sup>d</sup> is not hydrogen.

- 61. (New) The compound of claim 60 where R<sup>a</sup>, R<sup>b</sup>, R<sup>c</sup> and R<sup>d</sup> are, independently, hydrogen or a hydrocarbyl.
- 62. (New) The compound of claim 47 where X is represented by one of the formulae:

$$X^*$$
 $X^*$ 
 $X^*$ 

$$X^*$$
 $X^*$ 
 $X^*$ 

where each R is, independently, selected from the group consisting of hydrogen, methyl, ethyl, ethenyl, ethynyl and all isomers of propyl, butyl, pentyl, hexyl, heptyl, octyl, nonyl, decyl, undecyl, dodecyl, tridecyl, tetradecyl, pentadecyl, hexadecyl, heptadecyl, octadecyl, nonadecyl, eicosyl, heneicosyl, docosyl, tricosyl, tetracosyl, pentacosyl, hexacosyl, heptacosyl, octacosyl, nonacosyl, triacontyl, propenyl, butenyl, pentenyl, hexenyl, heptenyl, octenyl, nonenyl, decenyl, undecenyl, dodecenyl, tridecenyl, tetradecenyl, pentadecenyl, hexadecenyl, heptadecenyl, octadecenyl, nonadecenyl, eicosenyl, heneicosenyl, docosenyl, tricosenyl, tetracosenyl, pentacosenyl, hexacosenyl, heptacosenyl, octacosenyl, nonacosenyl, triacontenyl, propynyl, butynyl, pentynyl, hexynyl, heptynyl, octynyl, nonynyl, decynyl, undecynyl, dodecynyl, tridecynyl, tetradecynyl, pentadecynyl, hexadecynyl, heptadecynyl, octadecynyl, nonadecynyl, eicosynyl, heneicosynyl, docosynyl, tricosynyl, tetracosynyl, pentacosynyl, hexacosynyl, heptacosynyl, octacosynyl, nonacosynyl, and triacontynyl, phenyl, napthyl, anthracenyl, pyrenyl, biphenyl, benzyl, cyclopropyl, cyclobutyl, cyclopentyl, cyclohexyl, cycloheptyl, cyclooctyl, cyclononyl, cyclodecyl, cycloundecyl, cyclododecyl, fluoro, chloro, bromo, iodo, trimethylsilyl, triethylsilyl, tripropylsilyl, dimethylethylsilyl, diethylmethylsilyl, trimethoxysilyl, tirethoxysilyl, tripropoxysilyl, methoxy, ethoxy, propoxy, butoxy, phenoxy, or a nitro, carboxylic acid, ester, ketone (excluding 1,2-diketones) or aldehyde group, provided that two R groups can connect to form substituted or unsubstituted, saturated, partially unsaturated or aromatic ring structures; and each X\* is, independently, F, Cl, Br, I, OR\*\*, SR\*\*, NR\*\*2, PR\*\*2, or NO2; and

- each R\* and each R\*\* are, independently, selected from the group consisting of methyl, ethyl, n-propyl, iso-propyl, n-butyl, sec-butyl, tert-butyl, and cyclohexyl.
- 63. (New) The compound of claim 62, where R\* is *tert*-butyl or *iso*-propyl, R\*\* is methyl, and X\* is F, Cl, Br or OR\*\*.
- 64. (New) The compound of claim 60 where R<sup>b</sup> and R<sup>c</sup> connect to form a substituted or unsubstituted aromatic ring structure.
- 65. (New) The compound of claim 60 where R<sup>a</sup> and R<sup>b</sup> and/or R<sup>c</sup> and R<sup>d</sup> connect to form a substituted or unsubstituted aromatic ring structure.
- 66. (New) A catalyst system comprising an activator and the compound of claim 47.
- 67. (New) The catalyst system of claim 66 wherein the activator comprises an alumoxane and or a modified alumoxane.
- 68. (New) The catalyst system of claim 66 wherein the activator comprises methyl alumoxane and or modified methyl alumoxane.
- 69. (New) The catalyst system of claim 66 wherein the activator comprises [Me<sub>2</sub>PhNH][B(C<sub>6</sub>F<sub>5</sub>)<sub>4</sub>], [Ph<sub>3</sub>C][B(C<sub>6</sub>F<sub>5</sub>)<sub>4</sub>], [Me<sub>2</sub>PhNH][B((C<sub>6</sub>H<sub>3</sub>-3,5-(CF<sub>3</sub>)<sub>2</sub>))<sub>4</sub>], [Ph<sub>3</sub>C][B((C<sub>6</sub>H<sub>3</sub>-3,5-(CF<sub>3</sub>)<sub>2</sub>))<sub>4</sub>], [Bu<sub>3</sub>NH][BF<sub>4</sub>], [NH<sub>4</sub>][PF<sub>6</sub>], [NH<sub>4</sub>][SbF<sub>6</sub>], [NH<sub>4</sub>][AsF<sub>6</sub>], [NH<sub>4</sub>][B(C<sub>6</sub>H<sub>5</sub>)<sub>4</sub>], B(C<sub>6</sub>F<sub>5</sub>)<sub>3</sub> and/or B(C<sub>6</sub>H<sub>5</sub>)<sub>3</sub>.
- 70. (New) The catalyst system of claim 66 wherein the activator is an ionic stoichiometric activator compound.
- 71. (New) The catalyst system of claim 66 wherein the activator is a neutral stoichiometric activator compound.

- 72. (New) The catalyst system of claim 66 wherein M is Ni or Co.
- 73. (New) The catalyst system of claim 66 wherein the activator is a non-coordinating anion.
- 74. (New) The catalyst system of claim 66 wherein the activator is selected from the group consisting of: trimethylammonium tetraphenylborate, triethylammonium tetraphenylborate, tripropylammonium tetraphenylborate, tri(n-butyl)ammonium tetraphenylborate, tri(tert-butyl)ammonium tetraphenylborate, N,N-dimethylanilinium tetraphenylborate, N.N-diethylanilinium tetraphenylborate, N,N-dimethyl-(2,4,6trimethylanilinium) tetraphenylborate, trimethylammonium tetrakis(pentafluorophenyl)borate, triethylammonium tetrakis(pentafluorophenyl)borate, tripropylammonium tetrakis(pentafluorophenyl)borate, tri(n-butyl)ammonium tetrakis(pentafluorophenyl)borate, tri(sec-butyl)ammonium tetrakis(pentafluorophenyl)borate, N,N-dimethylanilinium tetrakis(pentafluorophenyl)borate, N,N-diethylanilinium tetrakis(pentafluorophenyl)borate, N.N-dimethyl-(2,4,6-trimethylanilinium) tetrakis(pentafluorophenyl)borate, trimethylammonium tetrakis-(2,3,4,6tetrafluorophenyl) borate, triethylammonium tetrakis-(2,3,4,6-tetrafluorophenyl)borate, tripropylammonium tetrakis-(2,3,4,6-tetrafluorophenyl)borate, tri(n-butyl)ammonium tetrakis-(2,3,4,6-tetrafluorophenyl)borate, dimethyl(tert-butyl)ammonium tetrakis-(2,3,4,6-tetrafluorophenyl)borate, N,N-dimethylanilinium tetrakis-(2,3,4,6tetrafluorophenyl)borate, N,N-diethylanilinium tetrakis-(2,3,4,6-tetrafluorophenyl)borate, N.N-dimethyl-(2,4,6-trimethylanilinium) tetrakis-(2,3,4,6-tetrafluorophenyl)borate, trimethylammonium tetrakis(perfluoronaphthyl)borate, triethylammonium tetrakis(perfluoronaphthyl)borate, tripropylammonium tetrakis(perfluoronaphthyl)borate, tri(n-butyl)ammonium tetrakis(perfluoronaphthyl)borate, tri(tert-butyl)ammonium tetrakis(perfluoronaphthyl)borate, N,N-dimethylanilinium tetrakis(perfluoronaphthyl)borate, N,N-diethylanilinium tetrakis(perfluoronaphthyl)borate, N,N-dimethyl-(2,4,6-trimethylanilinium)

tetrakis(perfluoronaphthyl)borate, trimethylammonium tetrakis(perfluorobiphenyl)borate, triethylammonium tetrakis(perfluorobiphenyl)borate, tripropylammonium tetrakis(perfluorobiphenyl)borate, tri(n-butyl)ammonium tetrakis(perfluorobiphenyl)borate, tri(tert-butyl)ammonium tetrakis(perfluorobiphenyl)borate, N,N-dimethylanilinium tetrakis(perfluorobiphenyl)borate, N,N-diethylanilinium tetrakis(perfluorobiphenyl)borate, N,N-dimethyl-(2,4,6-trimethylanilinium) tetrakis(perfluorobiphenyl)borate, trimethylammonium tetrakis(3,5bis(trifluoromethyl)phenyl)borate, triethylammonium tetrakis(3,5bis(trifluoromethyl)phenyl)borate, tripropylammonium tetrakis(3,5bis(trifluoromethyl)phenyl)borate, tri(n-butyl)ammonium tetrakis(3,5bis(trifluoromethyl)phenyl)borate, tri(tert-butyl)ammonium tetrakis(3,5bis(trifluoromethyl)phenyl)borate, N,N-dimethylanilinium tetrakis(3,5bis(trifluoromethyl)phenyl)borate, N,N-diethylanilinium tetrakis(3,5bis(trifluoromethyl)phenyl)borate, N,N-dimethyl-(2,4,6-trimethylanilinium) tetrakis(3,5bis(trifluoromethyl)phenyl)borate, di-(iso-propyl)ammonium tetrakis(pentafluorophenyl)borate, and dicyclohexylammonium tetrakis(pentafluorophenyl)borate, tri(o-tolyl)phosphonium tetrakis(pentafluorophenyl)borate, tri(2,6-dimethylphenyl)phosphonium tetrakis(pentafluorophenyl)borate, tropillium tetraphenylborate, triphenylcarbenium tetraphenylborate, triphenylphosphonium tetraphenylborate, triethylsilylium tetraphenylborate, benzene(diazonium)tetraphenylborate, tropillium tetrakis(pentafluorophenyl)borate, triphenylcarbenium tetrakis(pentafluorophenyl)borate, triphenylphosphonium tetrakis(pentafluorophenyl)borate, triethylsilylium tetrakis(pentafluorophenyl)borate, benzene(diazonium) tetrakis(pentafluorophenyl)borate, tropillium tetrakis-(2,3,4,6-tetrafluorophenyl)borate, triphenylcarbenium tetrakis-(2,3,4,6tetrafluorophenyl)borate, triphenylphosphonium tetrakis-(2,3,4,6tetrafluorophenyl)borate, triethylsilylium tetrakis-(2,3,4,6-tetrafluorophenyl)borate, benzene(diazonium) tetrakis-(2,3,4,6-tetrafluorophenyl)borate, tropillium tetrakis(perfluoronaphthyl)borate, triphenylcarbenium tetrakis(perfluoronaphthyl)borate,

triphenylphosphonium tetrakis(perfluoronaphthyl)borate, triethylsilylium tetrakis(perfluoronaphthyl)borate, benzene(diazonium) tetrakis(perfluoronaphthyl)borate, tropillium tetrakis(perfluorobiphenyl)borate, triphenylphosphonium tetrakis(perfluorobiphenyl)borate, triphenylphosphonium tetrakis(perfluorobiphenyl)borate, triethylsilylium tetrakis(perfluorobiphenyl)borate, benzene(diazonium) tetrakis(perfluorobiphenyl)borate, tropillium tetrakis(3,5-bis(trifluoromethyl)phenyl)borate, triphenylcarbenium tetrakis(3,5-bis(trifluoromethyl)phenyl)borate, triphenylphosphonium tetrakis(3,5-bis(trifluoromethyl)phenyl)borate, triethylsilylium tetrakis(3,5-bis(trifluoromethyl)phenyl)borate, and benzene(diazonium) tetrakis(3,5-bis(trifluoromethyl)phenyl)borate.

- 75. (New) The catalyst system of claim 66 further comprising a co-activator.
- 76. (New) A composition comprising a compound of claim 47 and a support.
- 77. (New) A composition comprising a catalyst system of claim 66 and a support.
- 78. (New) The composition of claim 76 where the support comprises one or more Group-2, -3, -4, -5, -13, or -14 metal or metalloid oxides.
- 79. (New) The composition of claim 76 where the support comprises silica, alumina, silica-alumina, or mixtures thereof.
- 80. (New) The composition of claim 76 where the support is silica.
- 81. (New) A method to polymerize an unsaturated monomer comprising contacting the monomer with the catalyst system of claim 66.
- 82. (New) A method to polymerize an unsaturated monomer comprising contacting the

- monomer with the composition of claim 77.
- 83. (New) A method to oligomerize an unsaturated monomer comprising contacting the monomer with the catalyst system of claim 66.
- 84. (New) A method to oligomerize an unsaturated monomer comprising contacting the monomer with the composition of claim 77.
- 85. (New) The method of claim 81 where the monomer comprises one or more  $C_2$  to  $C_{100}$  olefins.
- 86. (New) The method of claim 81 where the monomer comprises one or more of ethylene, propylene, butene, pentene, hexene, heptene, octene, nonene, decene, dodecene, 4-methylpentene-1, 3-methylpentene-1, 3,5,5-trimethylhexene-1, and 5-ethylnonene-1.
- 87. (New) The method of claim 81 where the monomer comprises ethylene.
- 88. (New) The method of claim 81 where the monomer comprises propylene.
- 89. (New) The transition metal compound of claim 47 wherein M is nickel, the compound is dimagnetic and the coordination sphere of the compound is arranged in a square planar geometry.
- 90. (New) The compound of claim 47 wherein is L is selected from the group consisting of IOTA-LIGANDS.
- 91. (New) A catalyst system comprising the compound of claim 89, an activator and an optional support.
- 92. (New) A method to oligomerize or polymerize an unsaturated monomer comprising contacting the monomer with the catalyst system of claim 66.

- 93. (New) The method of claim 92 wherein the monomer comprises one or more norbornenes, substituted norbornenes, cyclopentadienyls or substituted cyclopentene.
- 94. (New) The compound of claim 60 where the transition metal compound is [1,4-bis-(2,6-di-*iso*-propylphenyl)-l,4-diaza-l,3-butadiene] nickel(II) [3,6-di-*tert*, butylcatecholate],
  - [1,4-bis-(2,6-di-iso-propylphenyl)-l,4-diaza-l,3-butadiene] nickel(II) [3,6-di-tert-butyl-4-chlorocatecholate],
  - [1,4-bis-(2,6-di-*iso*-propylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [3,6-di-*tert*-butvl-4,5-dichlorocatecholate],
  - [1,4-bis-(2,6-di-iso-propylphenyl)-l,4-diaza-l,3-butadiene] nickel(II) [3,6-di-tert-butyl-4-fluorocatecholate],
  - [1,4-bis-(2,6-di-iso-propylphenyl)-l,4-diaza-l,3-butadiene] nickel(II) [3,6-di-tert-butyl-4,5-difluorocatecholate],
  - [1,4-bis-(2,6-di-iso-propylphenyl)-l,4-diaza-l,3-butadiene] nickel(II) [3,6-di-tert-butyl-4-methoxycatecholate],
  - [1,4-bis-(2,6-di-*iso*-propylphenyl)-l,4-diaza-l,3-butadiene] nickel(II) [3,6-di-*tert*-butvl-4,5-dimethoxycatecholate],
  - [1,4-bis-(2,6-di-iso-propylphenyl)-l,4-diaza-l,3-butadiene] nickel(II) [3,6-di-tert-butyl-4-iso-propylcatecholate],
  - [1,4-bis-(2,6-di-iso-propylphenyl)-l,4-diaza-l,3-butadiene] nickel(II) [3,6-di-tert-butyl-4-cyclohexylcatecholate],
  - [1,4-bis-(2,6-di-iso-propylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [3,5-di-tert-butylcatecholate],
  - [1,4-bis-(2,6-di-iso-propylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [3,5-di-tert-butyl-6-chlorocatecholate],
  - [1,4-bis-(2,6-di-iso-propylphenyl)-l,4-diaza-l,3-butadiene] nickel(II) [3,5-di-tert-butyl-6-nitrocatecholate],
  - [1,4-bis-(2,6-di-iso-propylphenyl)-l,4-diaza-l,3-butadiene] nickel(II) [3,4,6-tri-iso-propylcatecholate],

- [1,4-bis-(2,6-di-iso-propylphenyl)-l,4-diaza-l,3-butadiene] nickel( $\Pi$ ) [3,6-di-iso-propylcatecholate],
- [1,4-bis-(2,6-di-iso-propylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [3,5-dimethylcatecholate],
- [1,4-bis-(2,6-di-iso-propylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [1,4,6,8-tetra-tert-butyldibenzo[1,4]dioxine-2,3-diolate],
- [1,4-bis-(2,6-di-*iso*-propylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [1,4,6,7,8,9-hexachlorodibenzo[1,4]dioxine-2,3-diolate],
- [1,4-bis-(2,6-di-*iso*-propylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [1,4,6,7,8,9-hexabromodibenzo[1,4]dioxine-2,3-diolate],
- [2,3-dimethyl-1,4-bis-(2,6-di-iso-propylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [3,6-di-tert-butylcatecholate],
- [2,3-dimethyl-1,4-bis-(2,6-di-iso-propylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [3,6-di-tert-butyl-4-chlorocatecholate],
- [2,3-dimethyl-1,4-bis-(2,6-di-iso-propylphenyl)-l,4-diaza-l,3-butadiene] nickel(II) [3,6-di-tert-butvl-4,5-dichlorocatecholate],
- [2,3-dimethyl-1,4-bis-(2,6-di-*iso*-propylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [3,6-di-*tert*-butyl-4-fluorocatecholate],
- [2,3-dimethyl-1,4-bis-(2,6-di-*iso*-propylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [3,6-di-*tert*-butyl-4,5-difluorocatecholate],
- [2,3-dimethyl-1,4-bis-(2,6-di-iso-propylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [3,6-di-tert-butyl-4-methoxycatecholate],
- [2,3-dimethyl-1,4-bis-(2,6-di-iso-propylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [3,6-di-tert-butvl-4,5-dimethoxycatecholate],
- [2,3-dimethyl-1,4-bis-(2,6-di-iso-propylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [3,6-di-tert-butyl-4-iso-propylcatecholate],
- [2,3-dimethyl-1,4-bis-(2,6-di-iso-propylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [3,6-di-tert-butyl-4-cyclohexylcatecholate],
- [2,3-dimethyl-1,4-bis-(2,6-di-*iso*-propylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [3,5-di-*tert*-butylcatecholate],

- [2,3-dimethyl-1,4-bis-(2,6-di-iso-propylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [3,5-di-tert-butyl-6-chlorocatecholate],
- [2,3-dimethyl-1,4-bis-(2,6-di-*iso*-propylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [3,5-di-*tert*-butyl-6-nitrocatecholate],
- [2,3-dimethyl-1,4-bis-(2,6-di-iso-propylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [3,4,6-tri-iso-propylcatecholate],
- [2,3-dimethyl-1,4-bis-(2,6-di-iso-propylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [3,6-di-iso-propylcatecholate],
- [2,3-dimethyl-1,4-bis-(2,6-di-iso-propylphenyl)-1,4-diaza-1,3-butadiene] nickel(II)
- [1,4,6,8-tetra-tert-butyldibenzo[1,4]dioxine-2,3-diolate],
- [2,3-dimethyl-1,4-bis-(2,6-di-iso-propylphenyl)-1,4-diaza-1,3-butadiene] nickel(II)
- [1,4,6,7,8,9-hexachlorodibenzo[1,4]dioxine-2,3-diolate],
- [2,3-dimethyl-1,4-bis-(2,6-di-iso-propylphenyl)-1,4-diaza-1,3-butadiene] nickel(II)
- [1,4,6,7,8,9-hexabromodibenzo[1,4]dioxine-2,3-diolate],
- [2-methyl-1,4-bis-(2,6-di-iso-propylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [3,6-di-tert-butylcatecholate],
- [2-methyl-1,4-bis-(2,6-di-*iso*-propylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [3,6-di-*tert*-butyl-4-chlorocatecholate],
- [2-methyl-1,4-bis-(2,6-di-*iso*-propylphenyl)-l,4-diaza-l,3-butadiene] nickel(II) [3,6-di-*tert*-butvl-4,5-dichlorocatecholate],
- [2-methyl-1,4-bis-(2,6-di-*iso*-propylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [3,6-di-*tert*-butyl-4-fluorocatecholate],
- [2-methyl-1,4-bis-(2,6-di-*iso*-propylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [3,6-di-*tert*-butyl-4,5-difluorocatecholate],
- [2-methyl-1,4-bis-(2,6-di-*iso*-propylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [3,6-di-*tert*-butyl-4-methoxycatecholate],
- [2-methyl-1,4-bis-(2,6-di-iso-propylphenyl)-l,4-diaza-l,3-butadiene] nickel(II) [3,6-di-tert-butvl-4,5-dimethoxycatecholate],
- [2-methyl-1,4-bis-(2,6-di-iso-propylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [3,6-di-tert-butyl-4-iso-propylcatecholate],

- [2-methyl-1,4-bis-(2,6-di-*iso*-propylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [3,6-di-*tert*-butyl-4-cyclohexylcatecholate],
- [2-methyl-1,4-bis-(2,6-di-iso-propylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [3,5-di-tert-butylcatecholate],
- [2-methyl-1,4-bis-(2,6-di-*iso*-propylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [3,5-di-*tert*-butyl-6-chlorocatecholate],
- [2-methyl-1,4-bis-(2,6-di-*iso*-propylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [3,5-di-*tert*-butyl-6-nitrocatecholate],
- [2-methyl-1,4-bis-(2,6-di-iso-propylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [3,4,6-tri-iso-propylcatecholate],
- [2-methyl-1,4-bis-(2,6-di-*iso*-propylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [3,6-di-*iso*-propylcatecholate],
- [2-methyl-1,4-bis-(2,6-di-*iso*-propylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [1,4,6,8-tetra-*tert*-butyldibenzo[1,4]dioxine-2,3-diolate],
- [2-methyl-1,4-bis-(2,6-di-iso-propylphenyl)-1,4-diaza-1,3-butadiene] nickel(II)
- [1,4,6,7,8,9-hexachlorodibenzo[1,4]dioxine-2,3-diolate],
- [2-methyl-1,4-bis-(2,6-di-iso-propylphenyl)-1,4-diaza-1,3-butadiene] nickel(II)
- $[1,\!4,\!6,\!7,\!8,\!9\text{-}hexabromodibenzo[1,\!4] dioxine-2,\!3\text{-}diolate],$
- [2-methyl-3-propyl-1,4-bis-(2,6-di-*iso*-propylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [3,6-di-*tert*-butylcatecholate],
- [2-methyl-3-propyl-1,4-bis-(2,6-di-iso-propylphenyl)-1,4-diaza-1,3-butadiene] nickel(II)
- [3,6-di-tert-butyl-4-chlorocatecholate],
- [2-methyl-3-propyl-1,4-bis-(2,6-di-iso-propylphenyl)-1,4-diaza-1,3-butadiene] nickel(II)
- [3,6-di-tert-butvl-4,5-dichlorocatecholate],
- $[2-methyl-3-propyl-1,4-bis-(2,6-di-{\it iso}-propylphenyl)-1,4-diaza-1,3-butadiene]\ nickel (II)$
- [3,6-di-tert-butyl-4-fluorocatecholate],
- [2-methyl-3-propyl-1,4-bis-(2,6-di-iso-propylphenyl)-1,4-diaza-1,3-butadiene] nickel(II)
- [3,6-di-tert-butyl-4,5-difluorocatecholate],
- [2-methyl-3-propyl-1,4-bis-(2,6-di-iso-propylphenyl)-1,4-diaza-1,3-butadiene] nickel(II)
- [3,6-di-tert-butyl-4-methoxycatecholate],

- [2-methyl-3-propyl-1,4-bis-(2,6-di-iso-propylphenyl)-l,4-diaza-l,3-butadiene] nickel(II)
- [3,6-di-tert-butvl-4,5-dimethoxycatecholate],
- [2-methyl-3-propyl-1,4-bis-(2,6-di-iso-propylphenyl)-1,4-diaza-1,3-butadiene] nickel(II)
- [3,6-di-tert-butyl-4-iso-propylcatecholate],
- [2-methyl-3-propyl-1,4-bis-(2,6-di-iso-propylphenyl)-1,4-diaza-1,3-butadiene] nickel(II)
- [3,6-di-tert-butyl-4-cyclohexylcatecholate],
- [2-methyl-3-propyl-1,4-bis-(2,6-di-iso-propylphenyl)-1,4-diaza-1,3-butadiene] nickel(II)
- [3,5-di-tert-butylcatecholate],
- [2-methyl-3-propyl-1,4-bis-(2,6-di-iso-propylphenyl)-1,4-diaza-1,3-butadiene] nickel(II)
- [3,5-di-tert-butyl-6-chlorocatecholate],
- [2-methyl-3-propyl-1,4-bis-(2,6-di-iso-propylphenyl)-1,4-diaza-1,3-butadiene] nickel(II)
- [3,5-di-tert-butyl-6-nitrocatecholate],
- [2-methyl-3-propyl-1,4-bis-(2,6-di-iso-propylphenyl)-1,4-diaza-1,3-butadiene] nickel(II)
- [3,4,6-tri-iso-propylcatecholate],
- [2-methyl-3-propyl-1,4-bis-(2,6-di-iso-propylphenyl)-1,4-diaza-1,3-butadiene] nickel(II)
- [3,6-di-iso-propylcatecholate],
- [2-methyl-3-propyl-1,4-bis-(2,6-di-iso-propylphenyl)-1,4-diaza-1,3-butadiene] nickel(II)
- [1,4,6,8-tetra-tert-butyldibenzo[1,4]dioxine-2,3-diolate],
- [2-methyl-3-propyl-1,4-bis-(2,6-di-iso-propylphenyl)-1,4-diaza-1,3-butadiene] nickel(II)
- [1,4,6,7,8,9-hexachlorodibenzo[1,4]dioxine-2,3-diolate],
- [2-methyl-3-propyl-1,4-bis-(2,6-di-iso-propylphenyl)-1,4-diaza-1,3-butadiene] nickel(II)
- [1,4,6,7,8,9-hexabromodibenzo[1,4]dioxine-2,3-diolate],
- [1,4-bis-(2,6-dimethylphenyl)-l,4-diaza-l,3-butadiene] nickel(II) [3,6-di-tert-
- butylcatecholate],
- [1,4-bis-(2,6-dimethylphenyl)-l,4-diaza-l,3-butadiene] nickel(II) [3,6-di-*tert*-butyl-4-chlorocatecholate],
- [1,4-bis-(2,6-dimethylphenyl)-l,4-diaza-l,3-butadiene] nickel(II) [3,6-di-*tert*-butvl-4,5-dichlorocatecholate],
- [1,4-bis-(2,6-dimethylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [3,6-di-*tert*-butyl-4-fluorocatecholate],

- [1,4-bis-(2,6-dimethylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [3,6-di-*tert*-butyl-4,5-difluorocatecholate],
- [1,4-bis-(2,6-dimethylphenyl)-l,4-diaza-l,3-butadiene] nickel(II) [3,6-di-tert-butyl-4-methoxycatecholate],
- [1,4-bis-(2,6-dimethylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [3,6-di-tert-butvl-4,5-dimethoxycatecholate],
- [1,4-bis-(2,6-dimethylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [3,6-di-*tert*-butyl-4-*iso*-propylcatecholate],
- [1,4-bis-(2,6-dimethylphenyl)-l,4-diaza-l,3-butadiene] nickel(II) [3,6-di-tert-butyl-4-cyclohexylcatecholate],
- [1,4-bis-(2,6-dimethylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [3,5-di-tert-butylcatecholate],
- [1,4-bis-(2,6-dimethylphenyl)-l,4-diaza-l,3-butadiene] nickel(II) [3,5-di-tert-butyl-6-chlorocatecholate],
- [1,4-bis-(2,6-dimethylphenyl)-l,4-diaza-l,3-butadiene] nickel(II) [3,5-di-*tert*-butyl-6-nitrocatecholate],
- [1,4-bis-(2,6-dimethylphenyl)-l,4-diaza-l,3-butadiene] nickel(II) [3,4,6-tri-iso-propylcatecholate],
- [1,4-bis-(2,6-dimethylphenyl)-l,4-diaza-l,3-butadiene] nickel(II) [3,6-di-iso-propylcatecholate],
- [1,4-bis-(2,6-dimethylphenyl)-l,4-diaza-l,3-butadiene] nickel(II) [3,5-dimethylcatecholate],
- [1,4-bis-(2,6-dimethylphenyl)-l,4-diaza-l,3-butadiene] nickel(II) [1,4,6,8-tetra-tert-butyldibenzo[1,4]dioxine-2,3-diolate],
- [1,4-bis-(2,6-dimethylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [1,4,6,7,8,9-hexachlorodibenzo[1,4]dioxine-2,3-diolate],
- [1,4-bis-(2,6-dimethylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [1,4,6,7,8,9-hexabromodibenzo[1,4]dioxine-2,3-diolate],
- [2,3-dimethyl-1,4-bis-(2,6-dimethylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [3,6-di-tert-butylcatecholate],

- [2,3-dimethyl-1,4-bis-(2,6-dimethylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [3,6-di-tert-butyl-4-chlorocatecholate],
- [2,3-dimethyl-1,4-bis-(2,6-dimethylphenyl)-l,4-diaza-l,3-butadiene] nickel(II) [3,6-di-tert-butyl-4,5-dichlorocatecholate],
- [2,3-dimethyl-1,4-bis-(2,6-dimethylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [3,6-ditert-butyl-4-fluorocatecholate],
- [2,3-dimethyl-1,4-bis-(2,6-dimethylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [3,6-ditert-butyl-4,5-difluorocatecholate],
- [2,3-dimethyl-1,4-bis-(2,6-dimethylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [3,6-ditert-butyl-4-methoxycatecholate],
- [2,3-dimethyl-1,4-bis-(2,6-dimethylphenyl)-l,4-diaza-l,3-butadiene] nickel(II) [3,6-di-tert-butyl-4,5-dimethoxycatecholate],
- [2,3-dimethyl-1,4-bis-(2,6-dimethylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [3,6-di-tert-butyl-4-iso-propylcatecholate],
- [2,3-dimethyl-1,4-bis-(2,6-dimethylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [3,6-ditert-butyl-4-cyclohexylcatecholate],
- [2,3-dimethyl-1,4-bis-(2,6-dimethylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [3,5-di-tert-butylcatecholate],
- [2,3-dimethyl-1,4-bis-(2,6-dimethylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [3,5-di-tert-butyl-6-chlorocatecholate],
- [2,3-dimethyl-1,4-bis-(2,6-dimethylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [3,5-ditert-butyl-6-nitrocatecholate],
- [2,3-dimethyl-1,4-bis-(2,6-dimethylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [3,4,6-tri-iso-propylcatecholate],
- [2,3-dimethyl-1,4-bis-(2,6-dimethylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [3,6-di-iso-propylcatecholate],
- [2,3-dimethyl-1,4-bis-(2,6-dimethylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [1,4,6,8-tetra-tert-butyldibenzo[1,4]dioxine-2,3-diolate],
- [2,3-dimethyl-1,4-bis-(2,6-dimethylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [1,4,6,7,8,9-hexachlorodibenzo[1,4]dioxine-2,3-diolate],

[2,3-dimethyl-1,4-bis-(2,6-dimethylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [1,4,6,7,8,9-hexabromodibenzo[1,4]dioxine-2,3-diolate],

[2-methyl-1,4-bis-(2,6-dimethylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [3,6-di-tert-butylcatecholate],

[2-methyl-1,4-bis-(2,6-dimethylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [3,6-di-*tert*-butyl-4-chlorocatecholate],

[2-methyl-1,4-bis-(2,6-dimethylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [3,6-di-tert-butyl-4,5-dichlorocatecholate],

[2-methyl-1,4-bis-(2,6-dimethylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [3,6-di-tert-butyl-4-fluorocatecholate],

[2-methyl-1,4-bis-(2,6-dimethylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [3,6-di-tert-butyl-4,5-difluorocatecholate],

[2-methyl-1,4-bis-(2,6-dimethylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [3,6-di-tert-butyl-4-methoxycatecholate],

[2-methyl-1,4-bis-(2,6-dimethylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [3,6-di-tert-butvl-4,5-dimethoxycatecholate],

[2-methyl-1,4-bis-(2,6-dimethylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [3,6-di-*tert*-butyl-4-*iso*-propylcatecholate],

[2-methyl-1,4-bis-(2,6-dimethylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [3,6-di-tert-butyl-4-cyclohexylcatecholate],

[2-methyl-1,4-bis-(2,6-dimethylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [3,5-di-tert-butylcatecholate].

[2-methyl-1,4-bis-(2,6-dimethylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [3,5-di-tert-butyl-6-chlorocatecholate],

[2-methyl-1,4-bis-(2,6-dimethylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [3,5-di-tert-butyl-6-nitrocatecholate],

[2-methyl-1,4-bis-(2,6-dimethylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [3,4,6-tri-iso-propylcatecholate],

[2-methyl-1,4-bis-(2,6-dimethylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [3,6-di-iso-propylcatecholate],

[2-methyl-1,4-bis-(2,6-dimethylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [1,4,6,8-tetra-tert-butyldibenzo[1,4]dioxine-2,3-diolate],

[2-methyl-1,4-bis-(2,6-dimethylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [1,4,6,7,8,9-hexachlorodibenzo[1,4]dioxine-2,3-diolate],

[2-methyl-1,4-bis-(2,6-dimethylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [1,4,6,7,8,9-hexabromodibenzo[1,4]dioxine-2,3-diolate],

[2-methyl-3-propyl-1,4-bis-(2,6-dimethylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [3,6-di-tert-butylcatecholate],

[2-methyl-3-propyl-1,4-bis-(2,6-dimethylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [3,6-di-tert-butyl-4-chlorocatecholate],

[2-methyl-3-propyl-1,4-bis-(2,6-dimethylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [3,6-di-tert-butvl-4,5-dichlorocatecholate],

[2-methyl-3-propyl-1,4-bis-(2,6-dimethylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [3,6-di-tert-butyl-4-fluorocatecholate],

[2-methyl-3-propyl-1,4-bis-(2,6-dimethylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [3,6-di-tert-butyl-4,5-difluorocatecholate],

[2-methyl-3-propyl-1,4-bis-(2,6-dimethylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [3,6-di-tert-butyl-4-methoxycatecholate],

[2-methyl-3-propyl-1,4-bis-(2,6-dimethylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [3,6-di-tert-butvl-4,5-dimethoxycatecholate],

[2-methyl-3-propyl-1,4-bis-(2,6-dimethylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [3,6-di-tert-butyl-4-iso-propylcatecholate],

[2-methyl-3-propyl-1,4-bis-(2,6-dimethylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [3,6-di-tert-butyl-4-cyclohexylcatecholate],

[2-methyl-3-propyl-1,4-bis-(2,6-dimethylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [3,5-di-tert-butylcatecholate],

[2-methyl-3-propyl-1,4-bis-(2,6-dimethylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [3,5-di-tert-butyl-6-chlorocatecholate],

[2-methyl-3-propyl-1,4-bis-(2,6-dimethylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [3,5-di-tert-butyl-6-nitrocatecholate],

- [2-methyl-3-propyl-1,4-bis-(2,6-dimethylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [3,4,6-tri-iso-propylcatecholate],
- [2-methyl-3-propyl-1,4-bis-(2,6-dimethylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [3,6-di-iso-propylcatecholate],
- [2-methyl-3-propyl-1,4-bis-(2,6-dimethylphenyl)-1,4-diaza-1,3-butadiene] nickel(II)
- [1,4,6,8-tetra-tert-butyldibenzo[1,4]dioxine-2,3-diolate],
- [2-methyl-3-propyl-1,4-bis-(2,6-dimethylphenyl)-1,4-diaza-1,3-butadiene] nickel(II)
- [1,4,6,7,8,9-hexachlorodibenzo[1,4]dioxine-2,3-diolate],
- [2-methyl-3-propyl-1,4-bis-(2,6-dimethylphenyl)-1,4-diaza-1,3-butadiene] nickel(II)
- [1,4,6,7,8,9-hexabromodibenzo[1,4]dioxine-2,3-diolate],
- [1-(2,6-dimethylphenyl)-4-(2,6-di-iso-propylphenyl)-l,4-diaza-l,3-butadiene] nickel(II)
- [3,6-di-tert-butylcatecholate],
- [1-(2,6-dimethylphenyl)-4-(2,6-di-iso-propylphenyl)-l,4-diaza-l,3-butadiene] nickel(II)
- [3,6-di-tert-butyl-4-chlorocatecholate],
- [1-(2,6-dimethylphenyl)-4-(2,6-di-iso-propylphenyl)-l,4-diaza-l,3-butadiene] nickel(II)
- [3,6-di-tert-butvl-4,5-dichlorocatecholate],
- $[1-(2,6-\mathrm{dimethylphenyl})-4-(2,6-\mathrm{di}\text{-}iso-\mathrm{propylphenyl})-1,4-\mathrm{diaza-1,3-butadiene}]\ \mathrm{nickel}(\Pi)$
- [3,6-di-tert-butyl-4-fluorocatecholate],
- $[1-(2,6-\mathrm{dimethylphenyl})-4-(2,6-\mathrm{di}\text{-}iso-\mathrm{propylphenyl})-1,4-\mathrm{diaza-1,3-butadiene}]\ \mathrm{nickel}(\Pi)$
- [3,6-di-tert-butyl-4,5-difluorocatecholate],
- $[1-(2,6-\mathrm{dimethylphenyl})-4-(2,6-\mathrm{di}\text{-}iso-\mathrm{propylphenyl})-1,4-\mathrm{diaza-1,3-butadiene}]\ \mathrm{nickel}(\Pi)$
- [3,6-di-tert-butyl-4-methoxycatecholate],
- $[1-(2,6-\mathrm{dimethylphenyl})-4-(2,6-\mathrm{di}\text{-}iso\text{-}propylphenyl})-1,4-\mathrm{diaza-1},3-\mathrm{butadiene}]\ \mathrm{nickel}(\Pi)$
- [3,6-di-tert-butvl-4,5-dimethoxycatecholate],
- [1-(2,6-dimethylphenyl)-4-(2,6-di-iso-propylphenyl)-1,4-diaza-1,3-butadiene] nickel(II)
- [3,6-di-tert-butyl-4-iso-propylcatecholate],
- $[1-(2,6-\mathrm{dimethylphenyl})-4-(2,6-\mathrm{di}\text{-}iso\text{-propylphenyl})-1,4-\mathrm{diaza-1,3-butadiene}]\ \mathrm{nickel}(\Pi)$
- [3,6-di-tert-butyl-4-cyclohexylcatecholate],
- $[1-(2,6-\mathrm{dimethylphenyl})-4-(2,6-\mathrm{di}\text{-}iso\text{-}propylphenyl})-1,4-\mathrm{diaza-1,3-butadiene}]\ \ \mathrm{nickel}(\Pi)$
- [3,5-di-tert-butylcatecholate],

- [1-(2,6-dimethylphenyl)-4-(2,6-di-iso-propylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [3,5-di-tert-butyl-6-chlorocatecholate],
- $[1-(2,6-dimethylphenyl)-4-(2,6-di-iso-propylphenyl)-1,4-diaza-1,3-butadiene]\ nickel(\Pi)$
- [3,5-di-tert-butyl-6-nitrocatecholate],
- $[1-(2,6-dimethylphenyl)-4-(2,6-di-{\it iso-propylphenyl})-1,4-diaza-1,3-butadiene]\ nickel(II)$
- [3,4,6-tri-iso-propylcatecholate],
- $[1-(2,6-dimethylphenyl)-4-(2,6-di-\emph{iso}-propylphenyl)-1,4-diaza-1,3-butadiene]\ nickel(II)$
- [3,6-di-iso-propylcatecholate],
- [1-(2,6-dimethylphenyl)-4-(2,6-di-iso-propylphenyl)-1,4-diaza-1,3-butadiene] nickel(II)
- [3,5-dimethylcatecholate],
- [1-(2,6-dimethylphenyl)-4-(2,6-di-iso-propylphenyl)-1,4-diaza-1,3-butadiene] nickel(II)
- [1,4,6,8-tetra-tert-butyldibenzo[1,4]dioxine-2,3-diolate],
- [1-(2,6-dimethylphenyl)-4-(2,6-di-iso-propylphenyl)-1,4-diaza-1,3-butadiene] nickel(II)
- [1,4,6,7,8,9-hexachlorodibenzo[1,4]dioxine-2,3-diolate],
- [1-(2,6-dimethylphenyl)-4-(2,6-di-iso-propylphenyl)-1,4-diaza-1,3-butadiene] nickel(II)
- [1,4,6,7,8,9-hexabromodibenzo[1,4]dioxine-2,3-diolate],
- [2,3-dimethyl-1-(2,6-dimethylphenyl)-4-(2,6-di-iso-propylphenyl)-1,4-diaza-1,3-
- butadiene] nickel(II) [3,6-di-tert-butylcatecholate],
- [2,3-dimethyl-1-(2,6-dimethylphenyl)-4-(2,6-di-*iso*-propylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [3,6-di-*tert*-butyl-4-chlorocatecholate],
- [2,3-dimethyl-1-(2,6-dimethylphenyl)-4-(2,6-di-*iso*-propylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [3,6-di-*tert*-butvl-4,5-dichlorocatecholate],
- [2,3-dimethyl-1-(2,6-dimethylphenyl)-4-(2,6-di-*iso*-propylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [3,6-di-*tert*-butyl-4-fluorocatecholate],
- [2,3-dimethyl-1-(2,6-dimethylphenyl)-4-(2,6-di-iso-propylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [3,6-di-tert-butyl-4,5-difluorocatecholate],
- [2,3-dimethyl-1-(2,6-dimethylphenyl)-4-(2,6-di-iso-propylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [3,6-di-tert-butyl-4-methoxycatecholate],
- [2,3-dimethyl-1-(2,6-dimethylphenyl)-4-(2,6-di-*iso*-propylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [3,6-di-*tert*-butvl-4,5-dimethoxycatecholate],

- [2,3-dimethyl-1-(2,6-dimethylphenyl)-4-(2,6-di-*iso*-propylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [3,6-di-*tert*-butyl-4-*iso*-propylcatecholate],
- [2,3-dimethyl-1-(2,6-dimethylphenyl)-4-(2,6-di-*iso*-propylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [3,6-di-*tert*-butyl-4-cyclohexylcatecholate],
- [2,3-dimethyl-1-(2,6-dimethylphenyl)-4-(2,6-di-iso-propylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [3,5-di-tert-butylcatecholate],
- [2,3-dimethyl-1-(2,6-dimethylphenyl)-4-(2,6-di-iso-propylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [3,5-di-*tert*-butyl-6-chlorocatecholate],
- [2,3-dimethyl-1-(2,6-dimethylphenyl)-4-(2,6-di-iso-propylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [3,5-di-tert-butyl-6-nitrocatecholate],
- [2,3-dimethyl-1-(2,6-dimethylphenyl)-4-(2,6-di-iso-propylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [3,4,6-tri-iso-propylcatecholate],
- [2,3-dimethyl-1-(2,6-dimethylphenyl)-4-(2,6-di-*iso*-propylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [3,6-di-*iso*-propylcatecholate],
- [2,3-dimethyl-1-(2,6-dimethylphenyl)-4-(2,6-di-iso-propylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [1,4,6,8-tetra-tert-butyldibenzo[1,4]dioxine-2,3-diolate],
- [2,3-dimethyl-1-(2,6-dimethylphenyl)-4-(2,6-di-iso-propylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [1,4,6,7,8,9-hexachlorodibenzo[1,4]dioxine-2,3-diolate],
- [2,3-dimethyl-1-(2,6-dimethylphenyl)-4-(2,6-di-iso-propylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [1,4,6,7,8,9-hexabromodibenzo[1,4]dioxine-2,3-diolate],
- [2-methyl-1-(2,6-dimethylphenyl)-4-(2,6-di-*iso*-propylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [3,6-di-*tert*-butylcatecholate],
- [2-methyl-1-(2,6-dimethylphenyl)-4-(2,6-di-*iso*-propylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [3,6-di-*tert*-butyl-4-chlorocatecholate],
- [2-methyl-1-(2,6-dimethylphenyl)-4-(2,6-di-*iso*-propylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [3,6-di-*tert*-butvl-4,5-dichlorocatecholate],
- [2-methyl-1-(2,6-dimethylphenyl)-4-(2,6-di-*iso*-propylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [3,6-di-*tert*-butyl-4-fluorocatecholate],
- [2-methyl-1-(2,6-dimethylphenyl)-4-(2,6-di-iso-propylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [3,6-di-tert-butyl-4,5-difluorocatecholate],

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[2-methyl-1-(2,6-dimethylphenyl)-4-(2,6-di-iso-propylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [3,6-di-tert-butyl-4-methoxycatecholate],
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[2-methyl-1-(2,6-dimethylphenyl)-4-(2,6-di-*iso*-propylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [3,6-di-*tert*-butvl-4,5-dimethoxycatecholate],

[2-methyl-1-(2,6-dimethylphenyl)-4-(2,6-di-*iso*-propylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [3,6-di-*tert*-butyl-4-*iso*-propylcatecholate],

[2-methyl-1-(2,6-dimethylphenyl)-4-(2,6-di-*iso*-propylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [3,6-di-*tert*-butyl-4-cyclohexylcatecholate],

[2-methyl-1-(2,6-dimethylphenyl)-4-(2,6-di-*iso*-propylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [3,5-di-*tert*-butylcatecholate],

[2-methyl-1-(2,6-dimethylphenyl)-4-(2,6-di-iso-propylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [3,5-di-tert-butyl-6-chlorocatecholate],

[2-methyl-1-(2,6-dimethylphenyl)-4-(2,6-di-*iso*-propylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [3,5-di-*tert*-butyl-6-nitrocatecholate],

[2-methyl-1-(2,6-dimethylphenyl)-4-(2,6-di-iso-propylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [3,4,6-tri-iso-propylcatecholate],

[2-methyl-1-(2,6-dimethylphenyl)-4-(2,6-di-*iso*-propylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [3,6-di-*iso*-propylcatecholate],

[2-methyl-1-(2,6-dimethylphenyl)-4-(2,6-di-*iso*-propylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [1,4,6,8-tetra-*tert*-butyldibenzo[1,4]dioxine-2,3-diolate],

[2-methyl-1-(2,6-dimethylphenyl)-4-(2,6-di-iso-propylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [1,4,6,7,8,9-hexachlorodibenzo[1,4]dioxine-2,3-diolate],

[2-methyl-1-(2,6-dimethylphenyl)-4-(2,6-di-*iso*-propylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [1,4,6,7,8,9-hexabromodibenzo[1,4]dioxine-2,3-diolate],

[2-methyl-3-propyl-1-(2,6-dimethylphenyl)-4-(2,6-di-*iso*-propylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [3,6-di-*tert*-butylcatecholate],

[2-methyl-3-propyl-1-(2,6-dimethylphenyl)-4-(2,6-di-*iso*-propylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [3,6-di-*tert*-butyl-4-chlorocatecholate],

[2-methyl-3-propyl-1-(2,6-dimethylphenyl)-4-(2,6-di-*iso*-propylphenyl)-l,4-diaza-l,3-butadiene] nickel(II) [3,6-di-*tert*-butvl-4,5-dichlorocatecholate],

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[2-methyl-3-propyl-1-(2,6-dimethylphenyl)-4-(2,6-di-iso-propylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [3,6-di-tert-butyl-4-fluorocatecholate],
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[2-methyl-3-propyl-1-(2,6-dimethylphenyl)-4-(2,6-di-*iso*-propylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [3,6-di-*tert*-butyl-4,5-difluorocatecholate],

[2-methyl-3-propyl-1-(2,6-dimethylphenyl)-4-(2,6-di-*iso*-propylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [3,6-di-*tert*-butyl-4-methoxycatecholate],

[2-methyl-3-propyl-1-(2,6-dimethylphenyl)-4-(2,6-di-*iso*-propylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [3,6-di-*tert*-butvl-4,5-dimethoxycatecholate],

[2-methyl-3-propyl-1-(2,6-dimethylphenyl)-4-(2,6-di-*iso*-propylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [3,6-di-*tert*-butyl-4-*iso*-propylcatecholate],

[2-methyl-3-propyl-1-(2,6-dimethylphenyl)-4-(2,6-di-*iso*-propylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [3,6-di-*tert*-butyl-4-cyclohexylcatecholate],

[2-methyl-3-propyl-1-(2,6-dimethylphenyl)-4-(2,6-di-*iso*-propylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [3,5-di-*tert*-butylcatecholate],

[2-methyl-3-propyl-1-(2,6-dimethylphenyl)-4-(2,6-di-*iso*-propylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [3,5-di-*tert*-butyl-6-chlorocatecholate],

[2-methyl-3-propyl-1-(2,6-dimethylphenyl)-4-(2,6-di-*iso*-propylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [3,5-di-*tert*-butyl-6-nitrocatecholate],

[2-methyl-3-propyl-1-(2,6-dimethylphenyl)-4-(2,6-di-iso-propylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [3,4,6-tri-iso-propylcatecholate],

[2-methyl-3-propyl-1-(2,6-dimethylphenyl)-4-(2,6-di-*iso*-propylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [3,6-di-*iso*-propylcatecholate],

[2-methyl-3-propyl-1-(2,6-dimethylphenyl)-4-(2,6-di-*iso*-propylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [1,4,6,8-tetra-*tert*-butyldibenzo[1,4]dioxine-2,3-diolate],

[2-methyl-3-propyl-1-(2,6-dimethylphenyl)-4-(2,6-di-*iso*-propylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [1,4,6,7,8,9-hexachlorodibenzo[1,4]dioxine-2,3-diolate],

[2-methyl-3-propyl-1-(2,6-dimethylphenyl)-4-(2,6-di-*iso*-propylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [1,4,6,7,8,9-hexabromodibenzo[1,4]dioxine-2,3-diolate],

[1-(2,5-di-*tert*-butylphenyl)-4-(2,6-di-*iso*-propylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [3,6-di-*tert*-butylcatecholate],

- [1-(2,5-di-*tert*-butylphenyl)-4-(2,6-di-*iso*-propylphenyl)-l,4-diaza-l,3-butadiene] nickel(II) [3,6-di-*tert*-butyl-4-chlorocatecholate],
- $[1-(2,5-\mathrm{di}-tert-\mathrm{butylphenyl})-4-(2,6-\mathrm{di}-iso-\mathrm{propylphenyl})-1,4-\mathrm{diaza-l},3-\mathrm{butadiene}] \ \mathrm{nickel}(\Pi)$
- [3,6-di-tert-butvl-4,5-dichlorocatecholate],
- [1-(2,5-di-tert-butylphenyl)-4-(2,6-di-iso-propylphenyl)-1,4-diaza-1,3-butadiene] nickel(II)
- [3,6-di-tert-butyl-4-fluorocatecholate],
- [1-(2,5-di-tert-butylphenyl)-4-(2,6-di-iso-propylphenyl)-1,4-diaza-1,3-butadiene] nickel(II)
- [3,6-di-tert-butyl-4,5-difluorocatecholate],
- [1-(2,5-di-tert-butylphenyl)-4-(2,6-di-iso-propylphenyl)-1,4-diaza-1,3-butadiene] nickel(II)
- [3,6-di-tert-butyl-4-methoxycatecholate],
- [1-(2,5-di-tert-butylphenyl)-4-(2,6-di-iso-propylphenyl)-1,4-diaza-1,3-butadiene] nickel(II)
- [3,6-di-tert-butvl-4,5-dimethoxycatecholate],
- [1-(2,5-di-tert-butylphenyl)-4-(2,6-di-iso-propylphenyl)-1,4-diaza-1,3-butadiene] nickel(II)
- [3,6-di-*tert*-butyl-4-*iso*-propylcatecholate],
- [1-(2,5-di-tert-butylphenyl)-4-(2,6-di-iso-propylphenyl)-1,4-diaza-1,3-butadiene] nickel(II)
- [3,6-di-tert-butyl-4-cyclohexylcatecholate],
- $[1-(2,5-\mathrm{di-}\textit{tert}-\mathrm{butylphenyl})-4-(2,6-\mathrm{di-}\textit{iso}-\mathrm{propylphenyl})-1,4-\mathrm{diaza-l},3-\mathrm{butadiene}]\ \mathrm{nickel}(\Pi)$
- [3,5-di-tert-butylcatecholate],
- $[1-(2,5-\mathrm{di}-tert-\mathrm{butylphenyl})-4-(2,6-\mathrm{di}-iso-\mathrm{propylphenyl})-1,4-\mathrm{diaza-1},3-\mathrm{butadiene}]\ \mathrm{nickel}(\Pi)$
- [3,5-di-tert-butyl-6-chlorocatecholate],
- [1-(2,5-di-tert-butylphenyl)-4-(2,6-di-iso-propylphenyl)-l,4-diaza-l,3-butadiene] nickel(II)
- [3,5-di-tert-butyl-6-nitrocatecholate],
- [1-(2,5-di-tert-butylphenyl)-4-(2,6-di-iso-propylphenyl)-l,4-diaza-l,3-butadiene] nickel(II)
- [3,4,6-tri-iso-propylcatecholate],
- $[1-(2,5-\mathrm{di}-\mathit{tert}-\mathrm{butylphenyl})-4-(2,6-\mathrm{di}-\mathit{iso}-\mathrm{propylphenyl})-1,4-\mathrm{diaza-l},3-\mathrm{butadiene}]\ \mathrm{nickel}(\Pi)$
- [3,6-di-iso-propylcatecholate],
- $[1-(2,5-\mathrm{di-}\textit{tert}-\mathrm{butylphenyl})-4-(2,6-\mathrm{di-}\textit{iso}-\mathrm{propylphenyl})-l,4-\mathrm{diaza-}l,3-\mathrm{butadiene}] \ \mathrm{nickel}(\Pi)$
- [3,5-dimethylcatecholate],
- [1-(2,5-di-*tert*-butylphenyl)-4-(2,6-di-*iso*-propylphenyl)-l,4-diaza-l,3-butadiene] nickel(II)
- [1,4,6,8-tetra-tert-butyldibenzo[1,4]dioxine-2,3-diolate],

- [1-(2,5-di-*tert*-butylphenyl)-4-(2,6-di-*iso*-propylphenyl)-l,4-diaza-l,3-butadiene] nickel(II) [1,4,6,7,8,9-hexachlorodibenzo[1,4]dioxine-2,3-diolate],
- [1-(2,5-di-tert-butylphenyl)-4-(2,6-di-iso-propylphenyl)-1,4-diaza-1,3-butadiene] nickel( $\Pi$ ) [1,4,6,7,8,9-hexabromodibenzo[1,4]dioxine-2,3-diolate],
- [2,3-dimethyl-1-(2,5-di-*tert*-butylphenyl)-4-(2,6-di-*iso*-propylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [3,6-di-*tert*-butylcatecholate],
- [2,3-dimethyl-1-(2,5-di-*tert*-butylphenyl)-4-(2,6-di-*iso*-propylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [3,6-di-*tert*-butyl-4-chlorocatecholate],
- [2,3-dimethyl-1-(2,5-di-*tert*-butylphenyl)-4-(2,6-di-*iso*-propylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [3,6-di-*tert*-butyl-4,5-dichlorocatecholate],
- [2,3-dimethyl-1-(2,5-di-*tert*-butylphenyl)-4-(2,6-di-*iso*-propylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [3,6-di-*tert*-butyl-4-bromocatecholate],
- [2,3-dimethyl-1-(2,5-di-*tert*-butylphenyl)-4-(2,6-di-*iso*-propylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [3,6-di-*tert*-butyl-4,5-dibromocatecholate],
- [2,3-dimethyl-1-(2,5-di-*tert*-butylphenyl)-4-(2,6-di-*iso*-propylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [3,6-di-*tert*-butyl-4-fluorocatecholate],
- [2,3-dimethyl-1-(2,5-di-*tert*-butylphenyl)-4-(2,6-di-*iso*-propylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [3,6-di-*tert*-butyl-4,5-difluorocatecholate],
- [2,3-dimethyl-1-(2,5-di-*tert*-butylphenyl)-4-(2,6-di-*iso*-propylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [3,6-di-*tert*-butyl-4-methoxycatecholate],
- [2,3-dimethyl-1-(2,5-di-*tert*-butylphenyl)-4-(2,6-di-*iso*-propylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [3,6-di-*tert*-butyl-4,5-dimethoxycatecholate],
- [2,3-dimethyl-1-(2,5-di-*tert*-butylphenyl)-4-(2,6-di-*iso*-propylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [3,6-di-*tert*-butyl-4-*iso*-propylcatecholate],
- [2,3-dimethyl-1-(2,5-di-*tert*-butylphenyl)-4-(2,6-di-*iso*-propylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [3,6-di-*tert*-butyl-4-cyclohexylcatecholate],
- [2,3-dimethyl-1-(2,5-di-*tert*-butylphenyl)-4-(2,6-di-*iso*-propylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [3,5-di-*tert*-butylcatecholate],
- [2,3-dimethyl-1-(2,5-di-*tert*-butylphenyl)-4-(2,6-di-*iso*-propylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [3,5-di-*tert*-butyl-6-chlorocatecholate],

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[2,3-dimethyl-1-(2,5-di-tert-butylphenyl)-4-(2,6-di-iso-propylphenyl)-1,4-diaza-1,3-
butadiene] nickel(II) [3,5-di-tert-butyl-6-nitrocatecholate],
[2,3-dimethyl-1-(2,5-di-tert-butylphenyl)-4-(2,6-di-iso-propylphenyl)-1,4-diaza-1,3-
butadiene] nickel(II) [3,4,6-tri-iso-propylcatecholate],
[2,3-dimethyl-1-(2,5-di-tert-butylphenyl)-4-(2,6-di-iso-propylphenyl)-1,4-diaza-1,3-
butadiene] nickel(II) [3,6-di-iso-propylcatecholate],
[2,3-dimethyl-1-(2,5-di-tert-butylphenyl)-4-(2,6-di-iso-propylphenyl)-1,4-diaza-1,3-
butadiene] nickel(II) [1,4,6,8-tetra-tert-butyldibenzo[1,4]dioxine-2,3-diolate],
[2,3-dimethyl-1-(2,5-di-tert-butylphenyl)-4-(2,6-di-iso-propylphenyl)-1,4-diaza-1,3-
butadiene] nickel(II) [1,4,6,7,8,9-hexachlorodibenzo[1,4]dioxine-2,3-diolate],
[2,3-dimethyl-1-(2,5-di-tert-butylphenyl)-4-(2,6-di-iso-propylphenyl)-1,4-diaza-1,3-
butadiene] nickel(II) [1,4,6,7,8,9-hexabromodibenzo[1,4]dioxine-2,3-diolate],
[2-methyl-1-(2,5-di-tert-butylphenyl)-4-(2,6-di-iso-propylphenyl)-1,4-diaza-1,3-
butadiene] nickel(II) [3,6-di-tert-butylcatecholate],
[2-methyl-1-(2,5-di-tert-butylphenyl)-4-(2,6-di-iso-propylphenyl)-1,4-diaza-1,3-
butadiene] nickel(II) [3,6-di-tert-butyl-4-chlorocatecholate],
[2-methyl-1-(2,5-di-tert-butylphenyl)-4-(2,6-di-iso-propylphenyl)-1,4-diaza-1,3-butadiene]
nickel(II) [3,6-di-tert-butyl-4,5-dichlorocatecholate],
[2-methyl-1-(2,5-di-tert-butylphenyl)-4-(2,6-di-iso-propylphenyl)-1,4-diaza-1,3-
butadiene] nickel(II) [3,6-di-tert-butyl-4-fluorocatecholate],
[2-methyl-1-(2,5-di-tert-butylphenyl)-4-(2,6-di-iso-propylphenyl)-1,4-diaza-1,3-
butadiene] nickel(II) [3,6-di-tert-butyl-4,5-difluorocatecholate],
[2-methyl-1-(2,5-di-tert-butylphenyl)-4-(2,6-di-iso-propylphenyl)-1,4-diaza-1,3-
butadiene] nickel(II) [3,6-di-tert-butyl-4-methoxycatecholate],
[2-methyl-1-(2,5-di-tert-butylphenyl)-4-(2,6-di-iso-propylphenyl)-1,4-diaza-1,3-butadiene]
nickel(II) [3,6-di-tert-butvl-4,5-dimethoxycatecholate],
[2-methyl-1-(2,5-di-tert-butylphenyl)-4-(2,6-di-iso-propylphenyl)-1,4-diaza-1,3-
butadiene] nickel(II) [3,6-di-tert-butyl-4-iso-propylcatecholate],
[2-methyl-1-(2,5-di-tert-butylphenyl)-4-(2,6-di-iso-propylphenyl)-1,4-diaza-1,3-
butadiene] nickel(II) [3,6-di-tert-butyl-4-cyclohexylcatecholate],
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[2-methyl-1-(2,5-di-tert-butylphenyl)-4-(2,6-di-iso-propylphenyl)-1,4-diaza-1,3-
butadiene] nickel(II) [3,5-di-tert-butylcatecholate],
[2-methyl-1-(2,5-di-tert-butylphenyl)-4-(2,6-di-iso-propylphenyl)-1,4-diaza-1,3-
butadiene] nickel(II) [3,5-di-tert-butyl-6-chlorocatecholate],
[2-methyl-1-(2,5-di-tert-butylphenyl)-4-(2,6-di-iso-propylphenyl)-1,4-diaza-1,3-
butadiene] nickel(II) [3,5-di-tert-butyl-6-nitrocatecholate],
[2-methyl-1-(2,5-di-tert-butylphenyl)-4-(2,6-di-iso-propylphenyl)-1,4-diaza-1,3-
butadiene] nickel(II) [3,4,6-tri-iso-propylcatecholate],
[2-methyl-1-(2,5-di-tert-butylphenyl)-4-(2,6-di-iso-propylphenyl)-1,4-diaza-1,3-
butadienel nickel(II) [3,6-di-iso-propylcatecholate],
[2-methyl-1-(2.5-di-tert-butylphenyl)-4-(2.6-di-iso-propylphenyl)-1,4-diaza-1,3-
butadiene] nickel(II) [1,4,6,8-tetra-tert-butyldibenzo[1,4]dioxine-2,3-diolate],
[2-methyl-1-(2,5-di-tert-butylphenyl)-4-(2,6-di-iso-propylphenyl)-1,4-diaza-1,3-
butadiene] nickel(II) [1,4,6,7,8,9-hexachlorodibenzo[1,4]dioxine-2,3-diolate],
[2-methyl-1-(2,5-di-tert-butylphenyl)-4-(2,6-di-iso-propylphenyl)-1,4-diaza-1,3-
butadiene] nickel(II) [1,4,6,7,8,9-hexabromodibenzo[1,4]dioxine-2,3-diolate],
[2-methyl-3-propyl-1-(2,5-di-tert-butylphenyl)-4-(2,6-di-iso-propylphenyl)-1,4-diaza-1,3-
butadiene] nickel(II) [3,6-di-tert-butylcatecholate],
[2-methyl-3-propyl-1-(2,5-di-tert-butylphenyl)-4-(2,6-di-iso-propylphenyl)-1,4-diaza-1,3-
butadiene] nickel(II) [3,6-di-tert-butyl-4-chlorocatecholate],
[2-methyl-3-propyl-1-(2,5-di-tert-butylphenyl)-4-(2,6-di-iso-propylphenyl)-l,4-diaza-l,3-
butadiene] nickel(II) [3,6-di-tert-butvl-4,5-dichlorocatecholate],
[2-methyl-3-propyl-1-(2,5-di-tert-butylphenyl)-4-(2,6-di-iso-propylphenyl)-1,4-diaza-1,3-
butadiene] nickel(II) [3,6-di-tert-butyl-4-fluorocatecholate],
[2-methyl-3-propyl-1-(2,5-di-tert-butylphenyl)-4-(2,6-di-iso-propylphenyl)-1,4-diaza-1,3-
butadiene] nickel(II) [3,6-di-tert-butyl-4,5-difluorocatecholate],
[2-methyl-3-propyl-1-(2,5-di-tert-butylphenyl)-4-(2,6-di-iso-propylphenyl)-1,4-diaza-1,3-
butadiene] nickel(II) [3,6-di-tert-butyl-4-methoxycatecholate],
[2-methyl-3-propyl-1-(2,5-di-tert-butylphenyl)-4-(2,6-di-iso-propylphenyl)-1,4-diaza-1,3-
butadiene] nickel(II) [3,6-di-tert-butvl-4,5-dimethoxycatecholate],
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[2-methyl-3-propyl-1-(2,5-di-*tert*-butylphenyl)-4-(2,6-di-*iso*-propylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [3,6-di-*tert*-butyl-4-*iso*-propylcatecholate],

[2-methyl-3-propyl-1-(2,5-di-*tert*-butylphenyl)-4-(2,6-di-*iso*-propylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [3,6-di-*tert*-butyl-4-cyclohexylcatecholate],

[2-methyl-3-propyl-1-(2,5-di-*tert*-butylphenyl)-4-(2,6-di-*iso*-propylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [3,5-di-*tert*-butylcatecholate],

[2-methyl-3-propyl-1-(2,5-di-*tert*-butylphenyl)-4-(2,6-di-*iso*-propylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [3,5-di-*tert*-butyl-6-chlorocatecholate],

[2-methyl-3-propyl-1-(2,5-di-tert-butylphenyl)-4-(2,6-di-iso-propylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [3,5-di-tert-butyl-6-nitrocatecholate],

[2-methyl-3-propyl-1-(2,5-di-*tert*-butylphenyl)-4-(2,6-di-*iso*-propylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [3,4,6-tri-*iso*-propylcatecholate],

[2-methyl-3-propyl-1-(2,5-di-tert-butylphenyl)-4-(2,6-di-iso-propylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [3,6-di-iso-propylcatecholate],

[2-methyl-3-propyl-1-(2,5-di-tert-butylphenyl)-4-(2,6-di-iso-propylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [1,4,6,8-tetra-tert-butyldibenzo[1,4]dioxine-2,3-diolate],

[2-methyl-3-propyl-1-(2,5-di-*tert*-butylphenyl)-4-(2,6-di-*iso*-propylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [1,4,6,7,8,9-hexachlorodibenzo[1,4]dioxine-2,3-diolate],

[2-methyl-3-propyl-1-(2,5-di-*tert*-butylphenyl)-4-(2,6-di-*iso*-propylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [1,4,6,7,8,9-hexabromodibenzo[1,4]dioxine-2,3-diolate],

N,N'-(2,6-pyridinediyldiethylidyne)bis[2,4,6-trimethylbenzenamine] cobalt(I) [3,5-ditert-butylcatecholate],

N,N'-(2,6-pyridinediyldiethylidyne)bis[2-methylbenzenamine] cobalt(I) [3,5-di-tert-butyl catecholate],

N,N'-(2,6-pyridinediyldiethylidyne)bis[2,6-dimethylbenzenamine] cobalt(I) [3,5-di-tert-butylcatecholate],

N,N'-(2,6-pyridinediyldiethylidyne)bis[2,4-dimethylbenzenamine] cobalt(I) [3,5-di-tert-butylcatecholate],

N,N'-(2,6-pyridinediyldiethylidyne)bis[2,6-di-iso-propylbenzenamine] cobalt(I) [3,5-di-tert-butylcatecholate],

N,N'-(2,6-pyridinediyldiethylidyne)bis[2,6-di-*iso*-propyl-4-methylbenzenamine] cobalt(I) [3,5-di-*tert*-butylcatecholate],

N,N'-(2,6-pyridinediyldiethylidyne)bis[2-iso-propyl-4-methylbenzenamine] cobalt(I) [3,5-di-tert-butylcatecholate],

N,N'-(2,6-pyridinediyldiethylidyne)bis[2-iso-propyl-6-methylbenzenamine] cobalt(I) [3,5-di-tert-butylcatecholate],

N,N'-(2,6-pyridinediyldiethylidyne)bis[2-iso-propyl-benzenamine] cobalt(I) [3,5-di-tert-butylcatecholate],

N,N'-(2,6-pyridinediyldimethylidyne)bis[2,4,6-trimethylbenzenamine] cobalt(I) [3,5-ditert-butylcatecholate],

N,N'-(2,6-pyridinediyldimethylidyne)bis[2-methylbenzenamine] cobalt(I) [3,5-di-*tert*-butylcatecholate],

N,N'-(2,6-pyridinediyldimethylidyne)bis[2,6-dimethylbenzenamine] cobalt(I) [3,5-ditert-butylcatecholate],

N,N'-(2,6-pyridinediyldimethylidyne)bis[2,4-dimethylbenzenamine] cobalt(I) [3,5-ditert-butylcatecholate],

N,N'-(2,6-pyridinediyldimethylidyne)bis[2,6-di-iso-propylbenzenamine] cobalt(I) [3,5-di-tert-butylcatecholate],

N,N'-(2,6-pyridinediyldimethylidyne)bis[2,6-di-*iso*-propyl-4-methylbenzenamine] cobalt(I) [3,5-di-*tert*-butylcatecholate],

N,N'-(2,6-pyridinediyldimethylidyne)bis[2-iso-propyl-4-methylbenzenamine] cobalt(I) [3,5-di-tert-butylcatecholate],

N,N'-(2,6-pyridinediyldimethylidyne)bis[2-iso-propyl-6-methylbenzenamine] cobalt(I) [3,5-di-tert-butylcatecholate],

N,N'-(2,6-pyridinediyldimethylidyne)bis[2-iso-propylbenzenamine] cobalt(I) [3,5-di-tert-butylcatecholate],

N,N'-(2,6-pyridinediyldiethylidyne)bis[benzenamine] cobalt(I) [3,5-di-*tert*-butylcatecholate],

N,N'-(2,6-pyridinediyldiethylidyne)bis[2,4,6-trimethylbenzenamine] cobalt(I) [3,6-ditert-butylcatecholate], N,N'-(2,6-pyridinediyldiethylidyne)bis[2-methylbenzenamine] cobalt(I) [3,6-di-tert-butyl catecholate],

N,N'-(2,6-pyridinediyldiethylidyne)bis[2,6-dimethylbenzenamine] cobalt(I) [3,6-di-tert-butylcatecholate],

N,N'-(2,6-pyridinediyldiethylidyne)bis[2,4-dimethylbenzenamine] cobalt(I) [3,6-di-tert-butylcatecholate],

N,N'-(2,6-pyridinediyldiethylidyne)bis[2,6-di-iso-propylbenzenamine] cobalt(I) [3,6-di-tert-butylcatecholate],

N,N'-(2,6-pyridinediyldiethylidyne)bis[2,6-di-*iso*-propyl-4-methylbenzenamine] cobalt(I) [3,6-di-*tert*-butylcatecholate],

N,N'-(2,6-pyridinediyldiethylidyne)bis[2-iso-propyl-4-methylbenzenamine] cobalt(I) [3,6-di-tert-butylcatecholate],

N,N'-(2,6-pyridinediyldiethylidyne)bis[2-iso-propyl-6-methylbenzenamine] cobalt(I) [3,6-di-tert-butylcatecholate],

N,N'-(2,6-pyridinediyldiethylidyne)bis[2-iso-propyl-benzenamine] cobalt(I) [3,6-di-tert-butylcatecholate],

N,N'-(2,6-pyridinediyldimethylidyne)bis[2,4,6-trimethylbenzenamine] cobalt(I) [3,6-ditert-butylcatecholate],

N,N'-(2,6-pyridinediyldimethylidyne)bis[2-methylbenzenamine] cobalt(I) [3,6-di-tert-butylcatecholate],

N,N'-(2,6-pyridinediyldimethylidyne)bis[2,6-dimethylbenzenamine] cobalt(I) [3,6-ditert-butylcatecholate],

N,N'-(2,6-pyridinediyldimethylidyne)bis[2,4-dimethylbenzenamine] cobalt(I) [3,6-ditert-butylcatecholate],

N,N'-(2,6-pyridinediyldimethylidyne)bis[2,6-di-iso-propylbenzenamine] cobalt(I) [3,6-di-tert-butylcatecholate],

N,N'-(2,6-pyridinediyldimethylidyne)bis[2,6-di-*iso*-propyl-4-methylbenzenamine] cobalt(I) [3,6-di-*tert*-butylcatecholate],

N,N'-(2,6-pyridinediyldimethylidyne)bis[2-iso-propyl-4-methylbenzenamine] cobalt(I) [3,6-di-tert-butylcatecholate],

N,N'-(2,6-pyridinediyldimethylidyne)bis[2-iso-propyl-6-methylbenzenamine] cobalt(I) [3,6-di-tert-butylcatecholate],

N,N'-(2,6-pyridinediyldimethylidyne)bis[2-iso-propylbenzenamine] cobalt(I) [3,6-di-tert-butylcatecholate],

N,N'-(2,6-pyridinediyldiethylidyne)bis[benzenamine] cobalt(I) [3,6-di-tert-butylcatecholate],

N,N'-(2,6-pyridinediyldiethylidyne)bis[2,4,6-trimethylbenzenamine] cobalt(I) [3,6-ditert-butyl-4-chlorocatecholate],

N,N'-(2,6-pyridinediyldiethylidyne)bis[2-methylbenzenamine] cobalt(I) [3,6-di-tert-butyl-4-chlorocatecholate],

N,N'-(2,6-pyridinediyldiethylidyne)bis[2,6-dimethylbenzenamine] cobalt(I) [3,6-di-*tert*-butyl-4-chlorocatecholate],

N,N'-(2,6-pyridinediyldiethylidyne)bis[2,4-dimethylbenzenamine] cobalt(I) [3,6-di-*tert*-butyl-4-chlorocatecholate],

N,N'-(2,6-pyridinediyldiethylidyne)bis[2,6-di-*iso*-propylbenzenamine] cobalt(I) [3,6-di-*tert*-butyl-4-chlorocatecholate],

N,N'-(2,6-pyridinediyldiethylidyne)bis[2,6-di-*iso*-propyl-4-methylbenzenamine] cobalt(I) [3,6-di-*tert*-butyl-4-chlorocatecholate],

N,N'-(2,6-pyridinediyldiethylidyne)bis[2-iso-propyl-4-methylbenzenamine] cobalt(I) [3,6-di-tert-butyl-4-chlorocatecholate],

N,N'-(2,6-pyridinediyldiethylidyne)bis[2-iso-propyl-6-methylbenzenamine] cobalt(I) [3,6-di-tert-butyl-4-chlorocatecholate],

N,N'-(2,6-pyridinediyldiethylidyne)bis[2-iso-propyl-benzenamine] cobalt(I) [3,6-di-tert-butyl-4-chlorocatecholate],

N,N'-(2,6-pyridinediyldimethylidyne)bis[2,4,6-trimethylbenzenamine] cobalt(I) [3,6-ditert-butyl-4-chlorocatecholate],

N,N'-(2,6-pyridinediyldimethylidyne)bis[2-methylbenzenamine] cobalt(I) [3,6-di-tert-butyl-4-chlorocatecholate],

N,N'-(2,6-pyridinediyldimethylidyne)bis[2,6-dimethylbenzenamine] cobalt(I) [3,6-ditert-butyl-4-chlorocatecholate], N,N'-(2,6-pyridinediyldimethylidyne)bis[2,4-dimethylbenzenamine] cobalt(I) [3,6-ditert-butyl-4-chlorocatecholate],

N,N'-(2,6-pyridinediyldimethylidyne)bis[2,6-di-iso-propylbenzenamine] cobalt(I) [3,6-di-tert-butyl-4-chlorocatecholate],

N,N'-(2,6-pyridinediyldimethylidyne)bis[2,6-di-*iso*-propyl-4-methylbenzenamine] cobalt(I) [3,6-di-*tert*-butyl-4-chlorocatecholate],

N,N'-(2,6-pyridinediyldimethylidyne)bis[2-iso-propyl-4-methylbenzenamine] cobalt(I) [3,6-di-tert-butyl-4-chlorocatecholate],

N,N'-(2,6-pyridinediyldimethylidyne)bis[2-iso-propyl-6-methylbenzenamine] cobalt(I) [3,6-di-tert-butyl-4-chlorocatecholate],

N,N'-(2,6-pyridinediyldimethylidyne)bis[2-iso-propylbenzenamine] cobalt(I) [3,6-di-tert-butyl-4-chlorocatecholate],

N,N'-(2,6-pyridinediyldiethylidyne)bis[benzenamine] cobalt(I) [3,6-di-*tert*-butyl-4-chlorocatecholate],

N,N'-(2,6-pyridinediyldiethylidyne)bis[2,4,6-trimethylbenzenamine] cobalt(I) [3,6-ditert-butyl-4,5-dichlorocatecholate],

N,N'-(2,6-pyridinediyldiethylidyne)bis[2-methylbenzenamine] cobalt(I) [3,6-di-tert-butyl-4,5-dichlorocatecholate],

N,N'-(2,6-pyridinediyldiethylidyne)bis[2,6-dimethylbenzenamine] cobalt(I) [3,6-di-tert-butyl-4,5-dichlorocatecholate],

N,N'-(2,6-pyridinediyldiethylidyne)bis[2,4-dimethylbenzenamine] cobalt(I) [3,6-di-tert-butyl-4,5-dichlorocatecholate],

N,N'-(2,6-pyridinediyldiethylidyne)bis[2,6-di-iso-propylbenzenamine] cobalt(I) [3,6-di-tert-butyl-4,5-dichlorocatecholate],

N,N'-(2,6-pyridinediyldiethylidyne)bis[2,6-di-*iso*-propyl-4-methylbenzenamine] cobalt(I) [3,6-di-*tert*-butyl-4,5-dichlorocatecholate],

N,N'-(2,6-pyridinediyldiethylidyne)bis[2-iso-propyl-4-methylbenzenamine] cobalt(I) [3,6-di-tert-butyl-4,5-dichlorocatecholate],

N,N'-(2,6-pyridinediyldiethylidyne)bis[2-iso-propyl-6-methylbenzenamine] cobalt(I) [3,6-di-tert-butyl-4,5-dichlorocatecholate],

N,N'-(2,6-pyridinediyldiethylidyne)bis[2-iso-propyl-benzenamine] cobalt(I) [3,6-di-tert-butyl-4,5-dichlorocatecholate],

N,N'-(2,6-pyridinediyldimethylidyne)bis[2,4,6-trimethylbenzenamine] cobalt(I) [3,6-ditert-butyl-4,5-dichlorocatecholate],

N,N'-(2,6-pyridinediyldimethylidyne)bis[2-methylbenzenamine] cobalt(I) [3,6-di-*tert*-butyl-4,5-dichlorocatecholate],

N,N'-(2,6-pyridinediyldimethylidyne)bis[2,6-dimethylbenzenamine] cobalt(I) [3,6-ditert-butyl-4,5-dichlorocatecholate],

N,N'-(2,6-pyridinediyldimethylidyne)bis[2,4-dimethylbenzenamine] cobalt(I) [3,6-ditert-butyl-4,5-dichlorocatecholate],

N,N'-(2,6-pyridinediyldimethylidyne)bis[2,6-di-iso-propylbenzenamine] cobalt(I) [3,6-di-tert-butyl-4,5-dichlorocatecholate],

N,N'-(2,6-pyridinediyldimethylidyne)bis[2,6-di-*iso*-propyl-4-methylbenzenamine] cobalt(I) [3,6-di-*tert*-butyl-4,5-dichlorocatecholate],

N,N'-(2,6-pyridinediyldimethylidyne)bis[2-iso-propyl-4-methylbenzenamine] cobalt(I) [3,6-di-tert-butyl-4,5-dichlorocatecholate],

N,N'-(2,6-pyridinediyldimethylidyne)bis[2-iso-propyl-6-methylbenzenamine] cobalt(I) [3,6-di-tert-butyl-4,5-dichlorocatecholate],

N,N'-(2,6-pyridinediyldimethylidyne)bis[2-iso-propylbenzenamine] cobalt(I) [3,6-di-tert-butyl-4,5-dichlorocatecholate],

N,N'-(2,6-pyridinediyldiethylidyne)bis[benzenamine] cobalt(I) [3,6-di-tert-butyl-4,5-dichlorocatecholate],

N,N'-(2,6-pyridinediyldiethylidyne)bis[2,4,6-trimethylbenzenamine] cobalt(I) [3,6-ditert-butyl-4-methoxycatecholate],

N,N'-(2,6-pyridinediyldiethylidyne)bis[2-methylbenzenamine] cobalt(I) [3,6-di-tert-butyl-4-methoxycatecholate],

N,N'-(2,6-pyridinediyldiethylidyne)bis[2,6-dimethylbenzenamine] cobalt(I) [3,6-di-*tert*-butyl-4-methoxycatecholate],

N,N'-(2,6-pyridinediyldiethylidyne)bis[2,4-dimethylbenzenamine] cobalt(I) [3,6-di-tert-butyl-4-methoxycatecholate],

N,N'-(2,6-pyridinediyldiethylidyne)bis[2,6-di-iso-propylbenzenamine] cobalt(I) [3,6-di-tert-butyl-4-methoxycatecholate],

N,N'-(2,6-pyridinediyldiethylidyne)bis[2,6-di-*iso*-propyl-4-methylbenzenamine] cobalt(I) [3,6-di-*tert*-butyl-4-methoxycatecholate],

N,N'-(2,6-pyridinediyldiethylidyne)bis[2-iso-propyl-4-methylbenzenamine] cobalt(I) [3,6-di-tert-butyl-4-methoxycatecholate],

N,N'-(2,6-pyridinediyldiethylidyne)bis[2-iso-propyl-6-methylbenzenamine] cobalt(I)

[3,6-di-tert-butyl-4-methoxycatecholate], N,N'-(2,6-pyridinediyldiethylidyne)bis[2-iso-propyl-benzenamine] cobalt(I) [3,6-di-tert-butyl-4-methoxycatecholate]

N,N'-(2,6-pyridinediyldimethylidyne)bis[2,4,6-trimethylbenzenamine] cobalt(I) [3,6-ditert-butyl-4-methoxycatecholate],

butyl-4-methoxycatecholate],

N,N'-(2,6-pyridinediyldimethylidyne)bis[2-methylbenzenamine] cobalt(I) [3,6-di-tert-butyl-4-methoxycatecholate],

N,N'-(2,6-pyridinediyldimethylidyne)bis[2,6-dimethylbenzenamine] cobalt(I) [3,6-ditert-butyl-4-methoxycatecholate],

N,N'-(2,6-pyridinediyldimethylidyne)bis[2,4-dimethylbenzenamine] cobalt(I) [3,6-ditert-butyl-4-methoxycatecholate],

N,N'-(2,6-pyridinediyldimethylidyne)bis[2,6-di-*iso*-propylbenzenamine] cobalt(I) [3,6-di-*tert*-butyl-4-methoxycatecholate],

N,N'-(2,6-pyridinediyldimethylidyne)bis[2,6-di-*iso*-propyl-4-methylbenzenamine] cobalt(I) [3,6-di-*tert*-butyl-4-methoxycatecholate],

N,N'-(2,6-pyridinediyldimethylidyne)bis[2-iso-propyl-4-methylbenzenamine] cobalt(I) [3,6-di-tert-butyl-4-methoxycatecholate],

N,N'-(2,6-pyridinediyldimethylidyne)bis[2-iso-propyl-6-methylbenzenamine] cobalt(I) [3,6-di-tert-butyl-4-methoxycatecholate],

N,N'-(2,6-pyridinediyldimethylidyne)bis[2-iso-propylbenzenamine] cobalt(I) [3,6-di-tert-butyl-4-methoxycatecholate],

N,N'-(2,6-pyridinediyldiethylidyne)bis[benzenamine] cobalt(I) [3,6-di-tert-butyl-4-methoxycatecholate],

N,N'-(2,6-pyridinediyldiethylidyne)bis[2,4,6-trimethylbenzenamine] cobalt(I) [3,6-ditert-butyl-4,5-dimethoxycatecholate],

N,N'-(2,6-pyridinediyldiethylidyne)bis[2-methylbenzenamine] cobalt(I) [3,6-di-tert-butyl-4,5-dimethoxycatecholate],

N,N'-(2,6-pyridinediyldiethylidyne)bis[2,6-dimethylbenzenamine] cobalt(I) [3,6-di-tert-butyl-4,5-dimethoxycatecholate],

N,N'-(2,6-pyridinediyldiethylidyne)bis[2,4-dimethylbenzenamine] cobalt(I) [3,6-di-*tert*-butyl-4,5-dimethoxycatecholate],

N,N'-(2,6-pyridinediyldiethylidyne)bis[2,6-di-iso-propylbenzenamine] cobalt(I) [3,6-di-tert-butyl-4,5-dimethoxycatecholate],

N,N'-(2,6-pyridinediyldiethylidyne)bis[2,6-di-*iso*-propyl-4-methylbenzenamine] cobalt(I) [3,6-di-*tert*-butyl-4,5-dimethoxycatecholate],

N,N'-(2,6-pyridinediyldiethylidyne)bis[2-iso-propyl-4-methylbenzenamine] cobalt(I) [3,6-di-tert-butyl-4,5-dimethoxycatecholate],

N,N'-(2,6-pyridinediyldiethylidyne)bis[2-iso-propyl-6-methylbenzenamine] cobalt(I) [3,6-di-tert-butyl-4,5-dimethoxycatecholate],

N,N'-(2,6-pyridinediyldiethylidyne)bis[2-iso-propyl-benzenamine] cobalt(I) [3,6-di-tert-butyl-4,5-dimethoxycatecholate],

N,N'-(2,6-pyridinediyldimethylidyne)bis[2,4,6-trimethylbenzenamine] cobalt(I) [3,6-ditert-butyl-4,5-dimethoxycatecholate],

N,N'-(2,6-pyridinediyldimethylidyne)bis[2-methylbenzenamine] cobalt(I) [3,6-di-tert-butyl-4,5-dimethoxycatecholate],

N,N'-(2,6-pyridinediyldimethylidyne)bis[2,6-dimethylbenzenamine] cobalt(I) [3,6-ditert-butyl-4,5-dimethoxycatecholate],

N,N'-(2,6-pyridinediyldimethylidyne)bis[2,4-dimethylbenzenamine] cobalt(I) [3,6-ditert-butyl-4,5-dimethoxycatecholate],

N,N'-(2,6-pyridinediyldimethylidyne)bis[2,6-di-*iso*-propylbenzenamine] cobalt(I) [3,6-di-*tert*-butyl-4,5-dimethoxycatecholate],

N,N'-(2,6-pyridinediyldimethylidyne)bis[2,6-di-*iso*-propyl-4-methylbenzenamine] cobalt(I) [3,6-di-*tert*-butyl-4,5-dimethoxycatecholate],

N,N'-(2,6-pyridinediyldimethylidyne)bis[2-iso-propyl-4-methylbenzenamine] cobalt(I) [3,6-di-tert-butyl-4,5-dimethoxycatecholate],

N,N'-(2,6-pyridinediyldimethylidyne)bis[2-iso-propyl-6-methylbenzenamine] cobalt(I) [3,6-di-tert-butyl-4,5-dimethoxycatecholate],

N,N'-(2,6-pyridinediyldimethylidyne)bis[2-iso-propylbenzenamine] cobalt(I) [3,6-di-tert-butyl-4,5-dimethoxycatecholate],

N,N'-(2,6-pyridinediyldiethylidyne)bis[benzenamine] cobalt(I) [3,6-di-tert-butyl-4,5-dimethoxycatecholate],

N,N'-(2,6-pyridinediyldiethylidyne)bis[2,4,6-trimethylbenzenamine] cobalt(I) [4-iso-propylcatecholate],

N,N'-(2,6-pyridinediyldiethylidyne)bis[2-methylbenzenamine] cobalt(I) [4-iso-propylcatecholate],

N,N'-(2,6-pyridinediyldiethylidyne)bis[2,6-dimethylbenzenamine] cobalt(I) [4-iso-propylcatecholate],

N,N'-(2,6-pyridinediyldiethylidyne)bis[2,4-dimethylbenzenamine] cobalt(I) [4-iso-propylcatecholate],

N,N'-(2,6-pyridinediyldiethylidyne)bis[2,6-di-iso-propylbenzenamine] cobalt(I) [4-iso-propylcatecholate],

N,N'-(2,6-pyridinediyldiethylidyne)bis[2,6-di-*iso*-propyl-4-methylbenzenamine] cobalt(I) [4-*iso*-propylcatecholate],

N,N'-(2,6-pyridinediyldiethylidyne)bis[2-iso-propyl-4-methylbenzenamine] cobalt(I) [4-iso-propylcatecholate].

N,N'-(2,6-pyridinediyldiethylidyne)bis[2-iso-propyl-6-methylbenzenamine] cobalt(I) [4-iso-propylcatecholate],

N,N'-(2,6-pyridinediyldiethylidyne)bis[2-iso-propyl-benzenamine] cobalt(I) [4-iso-propylcatecholate],

N,N'-(2,6-pyridinediyldiethylidyne)bis[2,4,6-trimethylbenzenamine] cobalt(I) [4,5-di-iso-propylcatecholate],

N,N'-(2,6-pyridinediyldiethylidyne)bis[2-methylbenzenamine] cobalt(I) [4,5-di-iso-propylcatecholate],

N,N'-(2,6-pyridinediyldiethylidyne)bis[2,6-dimethylbenzenamine] cobalt(I) [4,5-di-iso-propylcatecholate],

N,N'-(2,6-pyridinediyldiethylidyne)bis[2,4-dimethylbenzenamine] cobalt(I) [4,5-di-iso-propylcatecholate],

N,N'-(2,6-pyridinediyldiethylidyne)bis[2,6-di-iso-propylbenzenamine] cobalt(I) [4,5-di-iso-propylcatecholate],

N,N'-(2,6-pyridinediyldiethylidyne)bis[2,6-di-*iso*-propyl-4-methylbenzenamine] cobalt(I) [4,5-di-*iso*-propylcatecholate],

N,N'-(2,6-pyridinediyldiethylidyne)bis[2-iso-propyl-4-methylbenzenamine] cobalt(I) [4,5-di-iso-propylcatecholate],

N,N'-(2,6-pyridinediyldiethylidyne)bis[2-iso-propyl-6-methylbenzenamine] cobalt(I) [4,5-di-iso-propylcatecholate],

N,N'-(2,6-pyridinediyldiethylidyne)bis[2-iso-propyl-benzenamine] cobalt(I) [4,5-di-iso-propylcatecholate],

N,N'-(2,6-pyridinediyldiethylidyne)bis[2,4,6-trimethylbenzenamine] cobalt(I) [4-cyclohexylcatecholate],

N,N'-(2,6-pyridinediyldiethylidyne)bis[2-methylbenzenamine] cobalt(I) [4-cyclohexylcatecholate],

N,N'-(2,6-pyridinediyldiethylidyne)bis[2,6-dimethylbenzenamine] cobalt(I) [4-cyclohexylcatecholate],

N,N'-(2,6-pyridinediyldiethylidyne)bis[2,4-dimethylbenzenamine] cobalt(I) [4-cyclohexylcatecholate],

N,N'-(2,6-pyridinediyldiethylidyne)bis[2,6-di-*iso*-propylbenzenamine] cobalt(I) [4-cyclohexylcatecholate],

N,N'-(2,6-pyridinediyldiethylidyne)bis[2,6-di-*iso*-propyl-4-methylbenzenamine] cobalt(I) [4-cyclohexylcatecholate],

N,N'-(2,6-pyridinediyldiethylidyne)bis[2-iso-propyl-4-methylbenzenamine] cobalt(I) [4-cyclohexylcatecholate],

N,N'-(2,6-pyridinediyldiethylidyne)bis[2-iso-propyl-6-methylbenzenamine] cobalt(I) [4-cyclohexylcatecholate],

N,N'-(2,6-pyridinediyldiethylidyne)bis[2-iso-propyl-benzenamine] cobalt(I) [4-cyclohexylcatecholate],

N,N'-(2,6-pyridinediyldiethylidyne)bis[2,4,6-trimethylbenzenamine] cobalt(I) [3,4,6-tri-iso-propylcatecholate],

N,N'-(2,6-pyridinediyldiethylidyne)bis[2-methylbenzenamine] cobalt(I) [3,4,6-tri-iso-propylcatecholate],

N,N'-(2,6-pyridinediyldiethylidyne)bis[2,6-dimethylbenzenamine] cobalt(I) [3,4,6-tri-iso-propylcatecholate],

N,N'-(2,6-pyridinediyldiethylidyne)bis[2,4-dimethylbenzenamine] cobalt(I) [3,4,6-tri-iso-propylcatecholate],

N,N'-(2,6-pyridinediyldiethylidyne)bis[2,6-di-*iso*-propylbenzenamine] cobalt(I) [3,4,6-tri-*iso*-propylcatecholate],

N,N'-(2,6-pyridinediyldiethylidyne)bis[2,6-di-*iso*-propyl-4-methylbenzenamine] cobalt(I) [3,4,6-tri-*iso*-propylcatecholate],

N,N'-(2,6-pyridinediyldiethylidyne)bis[2-iso-propyl-4-methylbenzenamine] cobalt(I) [3,4,6-tri-iso-propylcatecholate],

N,N'-(2,6-pyridinediyldiethylidyne)bis[2-iso-propyl-6-methylbenzenamine] cobalt(I) [3,4,6-tri-iso-propylcatecholate],

N,N'-(2,6-pyridinediyldiethylidyne)bis[2-iso-propyl-benzenamine] cobalt(I) [3,4,6-tri-iso-propylcatecholate],

N,N'-(2,6-pyridinediyldiethylidyne)bis[2,4,6-trimethylbenzenamine] cobalt(I) [3,6-di-iso-propylcatecholate],

N,N'-(2,6-pyridinediyldiethylidyne)bis[2-methylbenzenamine] cobalt(I) [3,6-di-iso-propylcatecholate],

N,N'-(2,6-pyridinediyldiethylidyne)bis[2,6-dimethylbenzenamine] cobalt(I) [3,6-di-iso-propylcatecholate],

N,N'-(2,6-pyridinediyldiethylidyne)bis[2,4-dimethylbenzenamine] cobalt(I) [3,6-di-iso-propylcatecholate],

N,N'-(2,6-pyridinediyldiethylidyne)bis[2,6-di-iso-propylbenzenamine] cobalt(I) [3,6-di-iso-propylcatecholate],

N,N'-(2,6-pyridinediyldiethylidyne)bis[2,6-di-*iso*-propyl-4-methylbenzenamine] cobalt(I) [3,6-di-*iso*-propylcatecholate],

N,N'-(2,6-pyridinediyldiethylidyne)bis[2-iso-propyl-4-methylbenzenamine] cobalt(I) [3,6-di-iso-propylcatecholate],

N,N'-(2,6-pyridinediyldiethylidyne)bis[2-iso-propyl-6-methylbenzenamine] cobalt(I) [3,6-di-iso-propylcatecholate],

N,N'-(2,6-pyridinediyldiethylidyne)bis[2-iso-propyl-benzenamine] cobalt(I) [3,6-di-iso-propylcatecholate],

N,N'-(2,6-pyridinediyldiethylidyne)bis[2,4,6-trimethylbenzenamine] cobalt(I) [naphthalene-2,3-diolate],

N,N'-(2,6-pyridinediyldiethylidyne)bis[2-methylbenzenamine] cobalt(I) [naphthalene-2,3-diolate],

N,N'-(2,6-pyridinediyldiethylidyne)bis[2,6-dimethylbenzenamine] cobalt(I) [naphthalene-2,3-diolate],

N,N'-(2,6-pyridinediyldiethylidyne)bis[2,4-dimethylbenzenamine] cobalt(I) [naphthalene-2,3-diolate],

N,N'-(2,6-pyridinediyldiethylidyne)bis[2,6-di-*iso*-propylbenzenamine] cobalt(I) [naphthalene-2,3-diolate],

N,N'-(2,6-pyridinediyldiethylidyne)bis[2,6-di-*iso*-propyl-4-methylbenzenamine] cobalt(I) [naphthalene-2,3-diolate],

N,N'-(2,6-pyridinediyldiethylidyne)bis[2-iso-propyl-4-methylbenzenamine] cobalt(I) [naphthalene-2,3-diolate],

N,N'-(2,6-pyridinediyldiethylidyne)bis[2-iso-propyl-6-methylbenzenamine] cobalt(I) [naphthalene-2,3-diolate],

N,N'-(2,6-pyridinediyldiethylidyne)bis[2-iso-propyl-benzenamine] cobalt(I) [naphthalene-2,3-diolate],

N,N'-(2,6-pyridinediyldiethylidyne)bis[2,4,6-trimethylbenzenamine] cobalt(I) [phenanthrene-9,10-diolate],

N,N'-(2,6-pyridinediyldiethylidyne)bis[2-methylbenzenamine] cobalt(I) [phenanthrene-9,10-diolate],

N,N'-(2,6-pyridinediyldiethylidyne)bis[2,6-dimethylbenzenamine] cobalt(I) [phenanthrene-9,10-diolate],

N,N'-(2,6-pyridinediyldiethylidyne)bis[2,4-dimethylbenzenamine] cobalt(I) [phenanthrene-9,10-diolate],

N,N'-(2,6-pyridinediyldiethylidyne)bis[2,6-di-iso-propylbenzenamine] cobalt(I) [phenanthrene-9,10-diolate],

N,N'-(2,6-pyridinediyldiethylidyne)bis[2,6-di-*iso*-propyl-4-methylbenzenamine] cobalt(I) [phenanthrene-9,10-diolate],

N,N'-(2,6-pyridinediyldiethylidyne)bis[2-iso-propyl-4-methylbenzenamine] cobalt(I) [phenanthrene-9,10-diolate],

N,N'-(2,6-pyridinediyldiethylidyne)bis[2-iso-propyl-6-methylbenzenamine] cobalt(I) [phenanthrene-9,10-diolate],

N,N'-(2,6-pyridinediyldiethylidyne)bis[2-iso-propyl-benzenamine] cobalt(I) [phenanthrene-9,10-diolate],

or any of the above compounds where "cobalt(I)" is replaced with platinum(II), palladium(II), nickel(II), iron(II), copper(I), or cobalt(II) and where "nickel(II)" is replaced with platinum(II), palladium(II), cobalt(I), iron(II), copper(I), or cobalt(II).